Exploring School Resource and Teacher Qualification Policies, their Implementation and Effects on Schools and Students' Educational Outcomes in Brazil



Christine Leigh Paget
Department of Education
University of Oxford
Kellogg College

Supervisors:
Professor Jo-Anne Baird
Professor Pam Sammons

Doctorate of Philosophy
Department of Education, University of Oxford
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Kellogg College, Doctorate of Philosophy, Department of Education, University of Oxford, Trinity 2018

Abstract

This thesis explored how recent Brazilian educational policies focused on increasing resources and teacher qualifications are related to improving Portuguese and mathematics outcomes, and how these policy changes are perceived and experienced by teachers in schools in the north-eastern state of Paraiba. This mixed methods research project was organized into two linked phases of inquiry using a pragmatic philosophical approach, and the dynamic approach to school improvement (DASI) theoretical model as its framework. Phase I used secondary data analysis of Prova Brasil data (2007-2013) collected by the Brazilian Ministry of Education to explore how increased school resources and teacher qualification requirements may be associated with Portuguese and mathematics outcomes in grade 4/5 and grade 8/9 in the state of Paraiba (n = 358,623) using multilevel models. Using the preliminary models of Phase I to guide the development of a semi-structured interview schedule, Phase II focused on how major Brazilian educational policy changes are affecting schools by exploring the perceptions and experiences of a small purposive sample of Paraibano public school teachers (n = 16) in depth. The results of Phase II then informed and led to the further refinement of the preliminary models of Phase I as part of the way the mixed methods approach linked the quantitative and qualitative components of this study. The integration and synthesis of Phase I and Phase II results suggest that increased availability of teacher supports such as libraries, teacher access to computers and internet, photocopiers, infrastructure, and increased teacher education levels are valued by teachers and may be associated with gains in student Portuguese and mathematics outcomes. Teachers note that while resource levels have improved dramatically, inconsistencies and inefficiencies have prevented both students and teachers from fully benefitting from these changes, and additionally, that resource levels vary considerably between school districts.

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Keywords: Brazilian education (Brazil), DASI model, Prova Brasil, mixed methods research, educational effectiveness, educational policy, national assessment systems, educational resources, teacher qualification.

Table of Contents

Abstract 1

List of Tables 7

List of Figures 9

List of Appendices 10

List of Abbreviations 11

Introduction **12**

Chapter 1: Literature Review **17**

1.1 *Education in Brazil* **17**

1.1.1 *Educational Policy Development in Brazil* 17

1.1.2 *Education in Brazil 1995-Present* 21

1.1.3 *International (PISA) and National Patterns of Enrolment and Achievement in Brazil* 23

1.1.4 *Patterns of Enrolment and Achievement in the state of Paraiba* 27

1.2 *National Assessment Systems* **30**

1.2.1 *National Assessment Systems* 30

1.2.2 *Prova Brasil* 32

1.3 *Educational Effectiveness Research* **33**

1.3.1 *History, Trends, and Limitations of Educational Effectiveness Research* 33

1.3.2 *Mixed Methods in Educational Effectiveness Research* 35

1.4 *Factors of Educational Progression in Related Studies* **37**

1.4.1 *Family Socio-Economic Status* 38

1.4.2 *School Resources* 39

1.4.3 *Teacher Qualification* 39

1.5 Chapter Summary **41**

Chapter 2: Philosophical, Theoretical, Conceptual and Practical Framework **42**

2.1 *Justification for the Research* **42**

2.2 *Research Questions* **43**

2.3 *Philosophical Framework* **44**

2.3.1 *Pragmatism* 45

2.3.2 *Pragmatism and Mixed Methods in Educational Research* 47

2.4 *Theoretical Framework* **49**

2.4.1 *Theoretical Models in School Effectiveness Studies* 49

2.4.2 *The Dynamic Model* 52

2.4.3 *Mixed Methods Research in School Effectiveness Studies* 55

2.5 *Conceptual Models* **57**

2.5.1 *General Conceptual Models for a Dynamic Approach to an Educational Effectiveness Study* 58

2.6 *From Theory to Practice* **59**

2.6.1 *Model of a Sequential Integrated Mixed-Methods Study* 60

2.6.2 *Phase I – Practical Model of Educational Resources Predicting Educational Outcomes* 61

2.6.3 *Phase II – Practical Model of the Semi-Structured Interview Schedule* 62

2.3 Chapter Summary **63**

Chapter 3: Research Design and Methodology **64**

Phase I

3.1 *Research Design and Methodology of Phase I* **65**

3.1.1 *Secondary Data Analysis* 66

3.1.2 *Cross-Sectional Data* 67

3.1.3 *Objectives and Design of Prova Brasil* 68

3.2 *Prova Brasil Sampling Strategy* **70**

3.2.1 *Limitations of the Prova Brasil Sampling Strategy* 71

3.3 *The Prova Brasil Data* **71**

3.3.1 *The Instruments Used in the Current Study* 72

3.3.2 *Measures of Educational Outcomes* 74

3.3.3 *Predictors of Educational Outcomes* 83

3.4 *Treatment of Missing Data* **88**

3.4.1 *Patterns of Missing Data* 88

3.4.2 *Treatment of Missing Data* 91

3.4.3 *Missing Data in This Study* 97

3.5 *Analytical Strategy* **99**

3.5.1 *Multilevel Models* 99

Phase II

3.6 *Research Design and Methodology for Phase II* **103**

3.6.1 *A Pragmatic Approach to Qualitative Inquiry* 103

3.6.2 *Fundamentals of Qualitative Research* 104

3.6.3 *Qualitative Research Design and Methodology* 107

3.7 *Interviews* **108**

3.7.1 *Semi-Structured Interviews* 108

3.7.2 *Interview Sample* 110

3.7.3 *Interview Schedule* 117

3.8 *Analytical Strategy* **120**

3.9 *Points of Intersection* **122**

3.10 *Ethical Considerations* **124**

Chapter 4: Phase I Quantitative Findings **126**

4.1 *Descriptive Analyses of the Predictors and Outcomes in the Prova Brasil Data Sets* **126**

4.1.1 *Descriptive Analyses of the Patterns of Portuguese and Mathematics Assessment Achievement by Paraibano Students* 127

4.1.2 *Descriptive Analysis of Student Socio-economic Background Characteristics* 128

4.1.3 *Descriptive Analyses of School Resource and Teacher Qualification Variables* 133

4.2 *Multilevel Models* **137**

4.2.1 *2007 Model Results* 137

4.2.2 *2009 Model Results* 150

4.2.3 *2011 Model Results* 162

4.2.4 *2013 Model Results* 174

4.3 *Summary of Phase I Findings* **186**

Chapter 5: Findings of Phase II Data **197**

5.1 *Analytical Process* **197**

5.1.1 *Translation and Back Translation* 198

5.1.2 *Coding* 200

5.2 *Findings* **205**

5.2.1 *Context* 206

5.3 *Educational Resources* **211**

5.3.1 *Focus* 212

5.3.2 *Stage* 217

5.3.3 *Quality* 218

5.3.4 *Differentiation* 223

5.3.5 *Summary* 225

5.4 *Teacher Qualification* **226**

5.4.1 Focus 226

5.4.2 Stage 229

5.4.3 Quality 229

5.4.4 Differentiation 231

5.4.5 Summary 232

Chapter 6: Discussion **234**

Conclusion **246**

References **251**

Appendices **Volume II**

List of Tables

Table 3.1: Use of Prova Brasil Surveys to Construct Measures Used in Current Study

Table 3.2: Score to Skill Scale for Prova Brasil's Portuguese Test

Table 3.3: Score to Skill Scale for Prova Brasil's Mathematics Test

Table 3.4: Conceptualizing Predictors of Educational Outcomes

Table 3.5: Missing Data Percentages By Variable By Year By Grade

Table 3.6: Interview Sample Characteristics

Table 3.7: Sample Site Summary of Observational Notes

Table 3.8: Phase II Interview Schedule

Table 4.1: Portuguese and Mathematics Outcomes of Grade 4/5 and 8/9 Students in 2007, 2009, 2011, and 2013 in Paraiba

Table 4.2: Socio-Economic Background Characteristics of Grade 4/5 and 8/9 students in 2007, 2009, 2011, and 2013 in Paraiba

Table 4.3: Mean School Resource and Teacher Qualification Levels for Grade 4/5 and 8/9 students in 2007, 2009, 2011, and 2013 in Paraiba

Table 4.4: 2007 Grade 4 Portuguese

Table 4.5: 2007 Grade 4 Mathematics

Table 4.6: 2007 Grade 8 Portuguese

Table 4.7: 2007 Grade 8 Mathematics

Table 4.8: 2009 Grade 5 Portuguese

Table 4.9: 2009 Grade 5 Mathematics

Table 4.10: 2009 Grade 9 Portuguese

Table 4.11: 2009 Grade 9 Mathematics

Table 4.12: 2011 Grade 5 Portuguese

Table 4.13: 2011 Grade 5 Mathematics

Table 4.14: 2011 Grade 9 Portuguese

Table 4.15: 2011 Grade 9 Mathematics

Table 4.16: 2013 Grade 5 Portuguese

Table 4.17: 2013 Grade 5 Mathematics

Table 4.18: 2013 Grade 9 Portuguese

Table 4.19: 2013 Grade 9 Mathematics

Table 4.20: Summary of Phase I Final Model (Model 6) Findings

Table 5.1 Code Book

List of Figures

Figure 1.1: Change in Brazilian Educational Attainment 1993-2009

Figure 1.2: Brazilian PISA results 2000-2009

Figure 1.3: PISA Math Performance 2000-2009 Brazil and Selected Comparison Countries

Figure 1.4: Change in Brazilian Educational Attainment 1993-2009

Figure 1.5: Shifts in Real Wages for Workers by Years of Schooling, 1993–2009

Figure 1.6: Regional Trends in Educational Attainment, 1993–2009

Figure 1.7: Fourth-Grade Math Performance by Region, 1999–2009

Figure 2.1: General Conceptual Model of the Dynamic Model

Figure 2.2: General Conceptual Model for the Current Study

Figure 2.3: General Practical Model for a Sequential Integrated Mixed-Methods Study

Figure 2.4: Phase I - Practical Model of Educational Resources Predicting Educational Outcomes

Figure 2.5: Phase II - Practical Model of the Semi-Structured Interview Schedule

Figure 3.1 Map of Paraiba Sample

Figure 4.1: Mean Grade 4/5 Student Socio-economic Background Characteristics in 2007, 2009, 2011, 2013

Figure 4.2: Mean Grade 8/9 Student Socio-economic Background Characteristics in 2007, 2009, 2011, 2013

Figure 4.3: Means of Grade 4/5 School Resource and Teacher Qualification Levels 2007, 2009, 2011, 2013

Figure 4.4: Means of Grade 8/9 School Resource and Teacher Qualification Levels 2007, 2009, 2011, 2013

List of Appendices

Appendix I: 2007-2013 Background Surveys

Appendix II: Examples of Grade 4/5 and Grade 8/9 Portuguese Assessment Questions

Appendix III: Descriptive Statistics for Grade 4/5 and Grade 8/9 Students' Prova Brasil Portuguese Scores 2007-2013

Appendix IV: Examples of Grade 4/5 and Grade 8/9 Mathematics Assessment Questions

Appendix V: Descriptive Statistics for Grade 4/5 and Grade 8/9 Students' Prova Brasil Mathematics Scores 2007-2013

Appendix VI: Descriptive Statistics of Predictors Used in This Study

Appendix VII: Analysis and Reflection of Pilot Interview

Appendix VIII: Site Observational Notes

Appendix IX: English and Portuguese Interview Schedule

Appendix X: Sample of Back-translation and Coding for Reliability

Appendix XI: Sample of Re-coded Interview by Peer Researcher

Appendix XII: Sample of a Coded Interview

Appendix XIII: CUREC

Appendix XIV: Sample Consent Forms in English and Portuguese

Appendix XV: Node Summary Table

Appendix XVI: Academic Curriculum Vitae

Appendix XVII: Ethical Reflection

List of Abbreviations

Brazilian Education Quality Index	IDEB
Dynamic Approach to School Improvement	DASI
Fund for the Maintenance and Development of Basic Education	FUNDEB
Fund for the Maintenance and Development of Primary Education	FUNDEF
Fund for the Strengthening of Schools	FUNDESCOLA
Instituto Nacional de Estudos e Pesquisas Educacionais	INEP
Large Scale Assessment	LSA
Organization for Economic Co-Operation and Development	OECD
Plano de Desenvolvimento da Escola	PDE
Programme for International Student Assessment	PISA
Sistema de Avaliacao da Educacao Basica	SAEB
Trends in International Mathematics and Science Study	TIMSS

Introduction

In 1995 Brazil began the development and implementation of a new wave of educational policies including the omnibus Fund for the Maintenance and Development of Primary Education (FUNDEF) (1996-2005), the Fund for the Maintenance and Development of Basic Education (FUNDEB) (2006-2020), and the Fund for the Strengthening of Schools (FUNDESCOLA) (2002-2008) reforms. These comprehensive policies dramatically increased funding for education in Brazil and clarified the educational responsibilities of federal, state, and municipal governments (The World Bank, 2013a). The aims of these Brazilian educational policies are to address the long-standing and well-recognized deficiencies in equitable access to quality education that have limited inter-generational social, economic, and political mobility (Brock & Schwartzman, 2004; Bruns, Evans, & Luque, 2012).

Brazil's progress towards the goal of equitable access to quality education since the implementation of these policies is notable. In 2000, despite not being part of the OECD, Brazilian President Cardoso entered the nation in the Programme for International Student Assessment (PISA) test. They came last and were described as 'uncompetitive' with developed nations and with other developing nations (Hanushek & Woessmann, 2012). At that time, it was estimated that only one half of the Brazilian population had completed primary education and that approximately three-quarters of Brazilian adults were functionally illiterate (Elacqua & Alves, 2014; Hanushek & Woessmann, 2012; Menezes-Filho, Franco, & Waltenberg, 2008; OECD, 2010a; *The Economist*, 2010). It was further reported *via* PISA analysis that even the top 5% of Brazilian students completing the PISA test were not achieving average OECD student levels (Menezes-Filho et al., 2008). By 2011, however, Brazil reported an average national enrolment rate of 95% for children aged 5 to 14, and an enrolment rate of 77% for 15-19 year olds (INEP, 2012; OECD, 2013; The World Bank, 2013b; Verhoeven & Beuselinck, 1995). Figure 1.1 illustrates the dramatic increase in enrolment and completion rates of Brazilians in primary and secondary school between the years of 1993 and 2009. Figure 1.2 illustrates Brazil's significant increases in educational performance on the PISA assessment between 2000 and 2009. In addition, between 2000 and 2009 Brazil achieved the largest increase in PISA scores on record (Bruns et al., 2012; INEP, 2012), indicating that the expansion of educational

access has been accompanied by some efforts to support quality education and the associated increase in demands on the system. This significant change in educational achievement has been recognized by the OECD as they selected Brazil in 2010 for a case study entitled "Brazil: Encouraging Lessons From A Large Scale Federal System" (OECD, 2010a), and ranked them as one of the top three nations to have significantly improved their educational performance over the last 20 years (Hanushek, Peterson, & Woessmann, 2012; Hanushek & Woessmann, 2012).

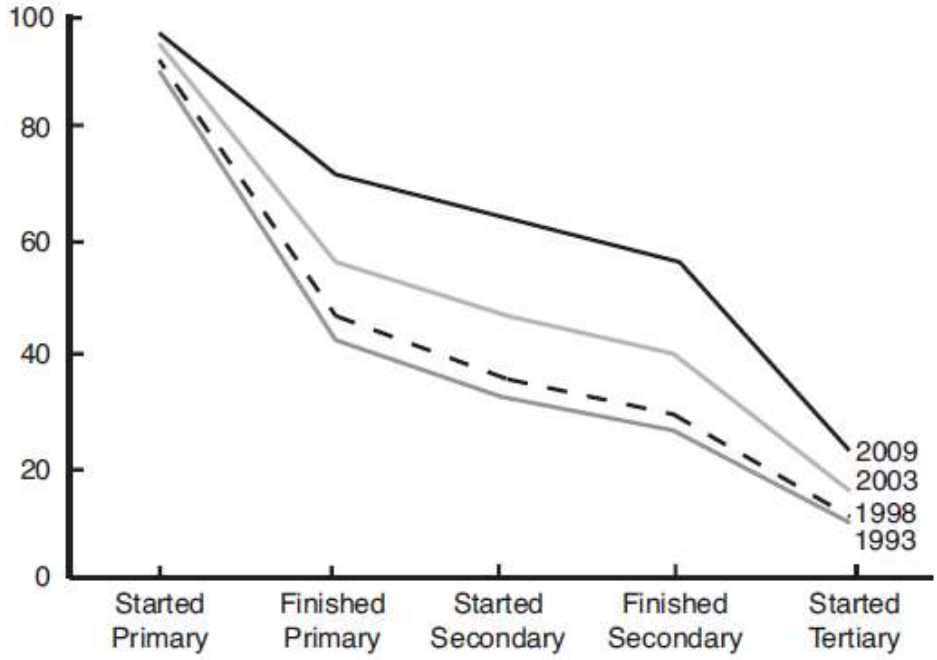


Figure 1.1: Change in Brazilian Educational Attainment 1993-2009
(Percentage of the population aged 26-30)
(Source: Bruns et al., 2012)



Figure 1.2: Brazilian PISA results 2000-2009
(Source: *The Economist*, 2010)

Brazil is working to address the extent to which education has traditionally been a strong predictor of poverty and inequality through the expansion of their educational systems (Barros & Ramos, 1996; Garcia, Ñopo, & Salardi, 2009; Herran & Rodrigues, 2000). These investments and progressions are consistently credited for Brazil's recent and significant rise on the Gini Index, an international measure of inequality (Bruns et al., 2012). As a result of these achievements, Brazil's educational policies have been the subject of much international attention and acclaim (Elacqua & Alves, 2014; OECD, 2010a; *The Economist*, 2010). Brazil's Ministry of Education, however, continues to evaluate and develop ameliorative policies and practices.

Paraiba, located in the north-east of Brazil, is one of Brazil's poorest states (Bruns et al., 2012). Valued primarily as hinterlands, the north-eastern states of Brazil have historically been underdeveloped. Paraiba, as a small state only moderately endowed in terms of resources, has lagged behind north-eastern educational indicator averages, which are already well behind Brazilian national indicator averages (Menezes-Filho et al., 2008). In 1995, as the Ministry of Education in Brazil began their policy development and implementation, Paraiba initiated a vigorous pursuit of available funding and support resources offered under the new programs. This has resulted in noticeable gains in educational resources in Paraiba (Bruns et al., 2012). Accompanying these increases in resources, Paraiba has experienced gains in enrolment and in educational achievement. Despite these positive trends, Paraiba is not yet on par with the averages of their neighbours in the north-east and certainly not with Brazilian averages (Bruns et al., 2012). Paraiba, with a primarily publicly funded elementary system, provides great advantages to researchers exploring the extent to which educational achievement is related to the increased funding and policy directives implemented by the Brazilian Ministry of Education. In addition, there has been some research to suggest that Brazilian policies are differentially effective; that the policies have been more effective in increasing achievement for poorer students (Bruns et al., 2012). Paraiba, with one of Brazil's lowest GDPs, offers an opportunity to examine educational achievement in the context of broader Brazilian policy goals of addressing income inequality and ethnic attainment discrepancies.

The over-arching aim of this study is to examine the effects of Brazilian educational policies that have increased funding for school resources and teacher qualification on students'

Portuguese and mathematics achievement and how these policies have impacted schools from the perspectives of teachers teaching in Paraiba. The central research question that guides this study is: How have recent Brazilian educational policies related to increased resources and teacher qualification (i.e. FUNDEF, FUNDEB and the National Policy on Teacher Education) affected schools and students' educational outcomes in Paraiba, Brazil? The study will employ a dynamic approach to school improvement (DASI) model to gauge the impact of resource and teacher qualification policies and their implementation - via the core DASI concepts of *frequency*, *focus*, *stage*, *quality*, and *differentiation* - on schools and on students' outcomes (see Creemers & Kyriakides, 2006). This research is organized into two phases and will address three primary questions:

Phase I

1) What are the relationships between the *frequency* (DASI) of school resource variables and students' attainment on the Prova Brasil assessment?

   a) Are there specific school resource variables that are significantly related to student attainment on the Prova Brasil assessment?

2) What are the relationships between the *frequency* (DASI) of teacher qualification variables and students' attainment on the Prova Brasil assessment?

   a) Are there specific teacher qualification variables that are significantly related to student attainment on the Prova Brasil assessment?

Phase II

3) What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of school resource and teacher qualification policy implementation and their effects on schools and students?

   a) What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of school resource policy implementation and their effects on schools and students?

b) What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of teacher qualification policy implementation and their effects on schools and students?

This study draws on quantitative data available through the Brazilian Ministry of Education's Assessment Branch (Instituto Nacional de Estudos e Pesquisas Educacionais) and interview data collected via fieldwork in August 2015 in Paraiba. The thesis is organized into six chapters. Chapter 1 introduces the areas of research that ground and contextualize this study via the relevant bodies of literature. Additionally, the Brazilian national education context and the Paraibano educational context are outlined, specifically referring to the progression of educational indicators over the last two decades. Finally, the variables considered in the study will be introduced. Chapter 2 outlines the philosophical and theoretical frameworks of the study and link these approaches to the conceptual framework of the study and the research design. Chapter 3 describes the methodology of the study inclusive of Phase I, Phase II, and 'points of intersection' (Guest, 2013) between the quantitative and qualitative data. Chapter 4 presents and discusses the results of Phase I of the study; the multilevel models used to illustrate the *frequency* of school resource and teacher qualification variables and the effects on students' educational achievement outcomes over the four time points for which data is available (2007, 2009, 2011, 2013). Chapter 5 presents the results of Phase II of the study; teacher perceptions and experiences of the *frequency*, *focus*, *stage*, *quality*, and *differentiation* of school resource and teacher qualification policy implementation, and their effects on schools and students. Chapter 6 brings together the results of each of the phases of research and presents the cumulative findings of the research in order to answer the questions of the study and contribute to related bodies of knowledge. The chapter further discusses additional avenues of research that could be pursued in light of the conclusions of this study.

Chapter 1: Literature Review

The purpose of this chapter is to introduce the contextual and empirical literature related to this study. Section 1.1 introduces an overview of Brazilian education including educational policy development, national trends of enrolment and achievement, as well as data related specifically to the north-east of Brazil and to Paraiba itself. Section 1.2 is focused on an overview of national assessment systems, including the Prova Brasil system. Section 1.3 presents the development of educational effectiveness research in general. Section 1.4 discusses the empirical literature associated with the factors of educational progression examined in this study. Section 1.5 provides a short summary of the chapter.

1.1 *Education in Brazil*

This section briefly outlines the history of education in Brazil and the current educational policy context. It goes on to highlight national patterns of enrolment and achievement as well as patterns in the state of Paraiba. The aims of the section are to situate the current research within the broader context of Brazil and Paraiba, and outline the relevance of the aims and research questions that guide this study.

1.1.1 *Educational Policy Development in Brazil*

Universal access to publicly funded primary education first appeared in the Brazilian constitution in 1824 and has appeared in every constitution since. Despite this relatively early inclusion into public policy, during the first 100 years of its existence the Ministry of Education was just a small administrative branch in the federal Ministry of Justice. This left municipalities and states largely autonomous with regards to the provision of education and as a result only minimal progress was made towards the goal of universal education over these years. In 1932 the Manifesto dos Pioneiros da Educacao National (Manifesto of the Pioneers of National Education) was published and obliged the federal government to provide four years of free, universal, secular, and compulsory education to all Brazilian children, as well as decentralizing administrative power to the state and municipal levels, and creating Brazil's first independent Ministry of Education. The following seven decades in Brazil are characterized by oscillations between military dictatorships and democratically elected governments that resulted in intense

political and ideological entanglements that ultimately stunted any educational policy progress. The only advances made were to increase the number of compulsory educational years from 4 to 8, increase investment in post-secondary education and vocational secondary studies, and Article 212 was added to the constitution which outlined a binding percentage of tax revenue to be directed towards public education – 18% of the federal government's revenue, and 25% of state and municipal revenue (Plank, 1996; Ranieri, 2010).

When Fernando Henrique Cardoso's government won the federal election in 1995, they inherited an educational system that had progressed little from the 1930s. In 1996 Cardoso's government amended the constitution to increase the binding percentage of tax revenue spent by federal, state, and municipal governments with the aim of universalizing access to early education and improving teacher salaries (Ranieri, 2010). These changes to funding were brought in under the policy umbrella of FUNDEF or Fund for the Maintenance and Development of Primary Education, which required that municipalities give 15% of their revenues to primary schools, of which 60% must go to teacher salaries, and further obliged the federal government to make up any shortfalls in either municipal or state funding by setting a per student minimum level of funding. Additionally, the government made changes to the national curricular guidelines which gave greater choice to states and municipalities in school books, and followed these changes through a nascent national evaluation system called SAEB (Burton, 2012).

When Luiz Lula da Silva's (Lula) government won the 2002 federal election, they again amended the constitution to expand the mandatory tax revenue funding to include primary and secondary education, set an even higher minimum per student value to be met across the country, and prioritized the universal enrolment of Brazilian children in grades 1 to 8 (Burton, 2012; Ranieri, 2010). The World Bank and the OECD both highlight these funding increases as key to improvements in the Brazilian education system (Burton, 2012; The Economist, 2010). Developed as a continuation of Cardoso's FUNDEF, the FUNDEB program under Lula's government also expanded Cardoso's Bolsa Escola program to the Bolsa Familia program (Burton, 2012).

The Bolsa Familia program is a comprehensive conditional cash transfer program, and although there are other conditional cash transfer programs implemented in over 40 countries, Bolsa Familia stands out as the largest program in the world (Silva, 2015). Bolsa Familia reaches 14 million families in Brazil, representing about one quarter of the population and costs about 28 billion Brazilian reals per year (Sabates & Simoes, 2014; Silva, 2015). It is estimated that as result of the program, 22,168,469 Brazilians were raised above the extreme poverty line between 2004 and 2011. As a *conditional* cash transfer program, there are certain requirements that must be met by the families receiving the support. Children in families receiving the cash transfer must be enrolled in school, and the minimum school attendance rate of the child must be 85% when the child is aged 6-15, and 75% when the child is aged 16 or 17. There are also requirements to immunize children, and have mothers attend both pre-natal and post-natal health appointments (Silva, 2015). The cash is transferred directly to the female head of household where applicable. Although difficulties have been noted in the regulation of the Bolsa Familia program (Magalhães, Bodstein, Coelho, Nogueira, & Bocca, 2011), the Brazilian government is unique in its approach to non-compliance. This is because compliance is only checked ***post*** payment, and families found to be non-compliant are contacted and assessed for further support rather than cut off from the program (Silva, 2015). Although Bolsa Familia is not specifically an education policy, it benefits approximately 17 million Brazilian students, which is about 30% of the entire Brazilian school population (Silva, 2015). The Bolsa Familia program is employed in every one of the 5570 Brazilian municipalities across the country and is designed to increase enrolment and retention rates in the primary and secondary education systems. Towards these goals of student enrolment and retention, the Bolsa Familia program has shown substantial positive effects (Sabates & Simoes, 2014; Silva, 2015) although its effects on student achievement have not been proven.

In addition to Bolsa Familia, Lula's government also implemented education specific policies which outline and address three major perceived shortfalls of the Brazilian education system. These three areas of policy emphasis are teacher qualification, de-centralization, and continued funding changes. Together these policies are intended to position Brazil on its education course, the aims of which are articulated in Brazil's current National Policy for Education 2014-2024. Towards the teacher qualification goals, Brazil has targeted a number of new policies which are

varied and comprehensive. The following is a list of such policies (OECD, 2010b; Zapata, Pont, Figueroa, Peterka, & Fraccola, 2015):

- In 2008 the Brazilian government set a nationwide minimum wage for teachers and set a maximum 40 hour work week.
- In 2009 they set a national policy for training of basic education teachers (i.e. a National Training Program and education level requirements for teachers of basic education).
- National scholarship program for teacher training was instituted.
- The federal government set up a system of open education, distance education, and Prolind (support for teachers teaching in Indigenous background areas) to increase access to teacher qualification and professional development programs nationwide.
- A program to support higher education in rural areas was developed.
- A national network of continuing professional training was set up.
- National requirements for teacher development growth and professional development plans were instituted.
- Requirements for all teachers to have specialized subject area training at the tertiary (university) level were declared.
- Requirements for at least 50% of teachers to receive post-graduate training were set.
- The federal government set a nationwide policy goal of teacher salaries to be raised to the average salary of other professionals in Brazil with university degrees.

The second major policy emphasis of the Brazilian Federal Government was de-centralization. The Brazilian Ministry of Education developed the PDE or Plano de Desenvolvimento da Escola program which was a de-centralization project designed to help schools become more responsive to context and communities (Carnoy, Gove, Loeb, Marshall, & Socias, 2008; Crespo Soares et al., 2000). PDE was administered by the World Bank's FundEscola project which encouraged schools to identify needs and develop plans which would then be submitted for an approval process after which additional funds could be provided to the school. The program was evaluated after its completion and although some improvements in management and learning materials were noted, there was no effect on student achievement detected (Carnoy et al., 2008).

Finally, the third major policy emphasis of the Brazilian government has been funding increases. In addition to FUNDEF and its successor, FUNDEB, in 2012 the Brazilian Federal Government committed 5.6% of Brazil's GDP to its education system (Zapata et al., 2015). This is higher than the OECD average of 5.3%. One of the primary goals of this increased funding has been to

increase access and enrollment, which the federal government has also emphasized. For example, in 2006 schooling became mandatory for ages 6-14 (Menezes-Filho et al., 2008), and in 2008 the policy was adjusted to read ages 5-14.

In order to monitor these policies and their impact on the Brazilian educational system, the INEP developed a national evaluation system (SAEB first and now Prova Brasil) to oversee educational progress (Crespo et al., 2000). The results of these evaluations have primarily showed that teacher qualification policies (Crespo Soares et al., 2000), and funding increases that have improved facilities and learning materials (Carnoy et al., 2008; Crespo Soares et al., 2000) most consistently and positively affect student achievement in Brazil. Thus, these policy areas will be the focus of this study.

1.1.2 *Education in Brazil 1995-Present*

In 1940 it was estimated that only about 25% of the Brazilian population between the ages of 5 and 14 was enrolled in school (Plank, 1996), and only 25% of the entire Brazilian population was functionally literate (Brock & Schwartzman, 2004). Even by 1970 at least one third of the Brazilian population was completely illiterate (OECD, 2010b; Schwartzman, 2013). Between 1964 and 1984, the years of military rule in Brazil, there were 12 Education Ministers, and between 1985 and 2004 there were 8 Education Ministers (Schwartzman, 2013). Cohesive educational policy development was therefore problematic.

In 1995, however, Fernando Henrique Cardoso was elected president of Brazil and initiated a wave of educational policy reforms dedicated to equity and efficiency (Brock & Schwartzman, 2004; Bruns et al., 2012). Aiming to address one of the world's largest income inequality levels (Brock & Schwartzman, 2004; Singh, 1992; Verner, 2004), low levels of intergenerational mobility (Cavalcanti, Guimaraes, & Sampaio, 2010), and the strong past and present day association between ethnicity and poverty (Arias, Yamada, & Tejerina, 2002; Bailey, Loveman, & Muniz, 2013; Barros & Ramos, 1996; Behrman & Schneider, 1996; Hasenbalg & Silva, 1988; Herran & Rodrigues, 2000; Verner, 2004), the Cardoso government began in 1996 by passing a law that clarified the roles and responsibilities of educational provision for federal, state, and municipal governments.

Through the FUNDEF (1998-2005), FUNDEB (2006-2020) and FUNDESCOLA (2002-2008) programs, the Cardoso, Lula, and Rousseff governments have established a per student spending floor, mandated the redistribution of funds across states and municipalities, pledged federal funds to address any remaining gaps, increased teacher salaries, and assigned control of primary education to municipal governments regulated by the state. Programa Diheiro Directo Na Escola (Program for direct cash transfers to schools), a branch of FUNDESCOLA, gave direct cash aid to help schools meet these minimum requirements. Avaliacao do Livro Didatico (Textbook Evaluation) distributed free textbooks to schools previously without, and Programa de Formacao de Professores em Exercico increased access to teacher training programs in the north, north-east, and center-west. In addition, Bolsa Familia and Bolsa Escola (part of Programa de Erradicacao do Trabalho Infantil or Program for the Eradication of Child Labour) offered cash incentives to families who enrol their children and oversee their attendance in school. National Health, School Lunch, and Student Transportation measures were also put in place to support the physical health of students and transport them to school. These policies, as well as the additional areas of policy development previously outlined, have had an enormous impact on education in Brazil, and have provided higher than average returns on investment (Cavalcanti et al., 2010; Psacharopoulos, 1999; Psacharopoulos & Patrinos, 2004).

These educational policies have resulted in major achievements for the Brazilian educational system. For example, the national enrollment rate of school aged children in Brazil is now 97%, even in the rural North East (Carnoy et al., 2008). And although the rate of students from public school achieving entrance to the coveted public university system is still lower than the rate of private school students, once public school students enter post-secondary education, they perform as well as private school students (Cavalcanti et al., 2010). Although major improvements to Brazil's educational systems have been apparent, Brazil still faces many challenges. For example, almost 30% of Brazilian children do not complete middle school (grade 9), and 50% do not complete high school (OECD, 2010b). Additionally, it still takes the average Brazilian student between 9 and 12 years to achieve a grade 8 level education due to grade repetition (OECD, 2010b). Despite recent adjustments to mandatory enrolment ages for Brazilian children, only four hours of schooling are currently required per day, with schools holding two or three shifts per day. Nevertheless, the Brazilisn government continues to evaluate

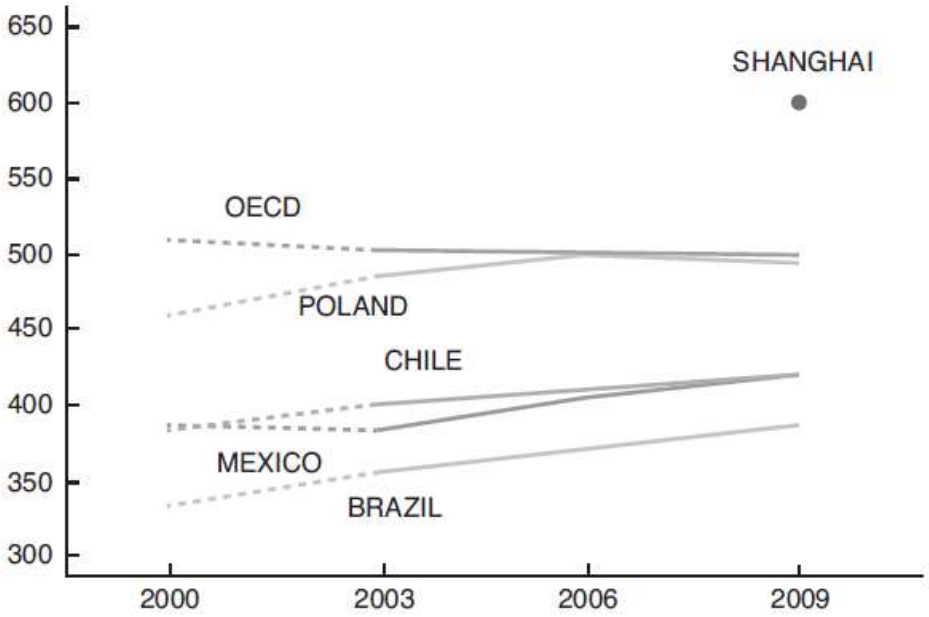
its policies and achievement, and has articulated clear goals for itself. Their intention is to reach average OECD levels on the PISA assessment by 2022.

1.1.3 *International (PISA) and National Patterns of Enrolment and Achievement in Brazil*

Although still trailing well behind OECD country averages, between 2000 and 2009 Brazil improved in all PISA tested subjects, including achieving a 52 point increase on their PISA mathematics scores, the equivalent of one full year of mathematics mastery gain (see Figure 1.2 below), the largest gain on record (Bruns et al., 2012; OECD, 2010b). Overall average PISA scores for Brazil rose from 396 in 2000 to 412 in 2009, although the OECD average is 500 (OECD, 2010b). The 2012 PISA results showed that 67% of Brazilian students are considered "low performers", compared to the OECD average of 23% (Zapata et al., 2015). Grade repetition in Brazil is also significantly higher than the OECD average (36.1% vs. 12.4%) (Zapata et al., 2015). With further analysis, the 2012 PISA results showed that mathematics performance of Brazilian students reflected the OECD average for students of similar socio-economic levels to the Brazilians, and that between 2003 and 2012 Brazil improved the most in terms of mathematics performance and had one of the largest decreases of any participating country in the proportion of low performers in mathematics (Zapata et al., 2015).

Brazil has a national plan for education that aims to bring Brazil's overall PISA scores in line with OECD averages by 2022. Towards that goal, progress on Brazil's national assessment systems (i.e. Prova Brasil), which are designed to align themselves with PISA scores and achievement levels, is monitored every two years. For example, between 2005 and 2009, Brazilian primary schools (grades 1-4) improved their scores on the national tests from 3.8 to 4.6 although the target achievement level was only 4.2. Intermediate schools (grades 5-8) improved their scores from 3.5 to 4.0 over the same time frame, and their target was 3.7. High schools went from 3.4 to 3.6 and their goal was 3.5 (OECD, 2010b). After every round of testing schools are required to develop and implement plans for improvement so that Brazil may continue to move towards its 2022 PISA goals. Municipalities that are not meeting their targets are given additional funding, resources, and university outreach partnerships. Figure 1.3 shows

Brazil's steady improvement on the PISA assessment of mathematics between 2000 and 2009 in comparison with other selected participant countries, and the OECD average. While an improvement is obvious, the gap between Brazilian performance and the OCED average is substantial.



Note: The PISA math test in 2000 covered a smaller number of domains, and its results are therefore not directly comparable with the subsequent years.

Figure 1.3: PISA Math Performance 2000-2009 Brazil and Selected Comparison Countries (Source: Bruns, Evans, & Luque, 2012)

More recent PISA statistics for Brazil show some growth on the mathematics portion of the PISA assessment between 2006 and 2015, with a slight dip noted between 2012 and 2015 (PISA, 2015). The reading results have been stable for Brazil over the same time frame, with a large portion of the growth between 2006 and 2009, and then stability over the 2012 and 2015 time points (ibid). Of note, Brazil has reached the OECD average with regard to how socio-economic background factors impact student performance, seeing a dramatic decrease in the effect of socio-economic factors between the years of 2006 and 2015. Additionally, Brazil is currently above the OECD average in gender equality, with girls performing almost as well as boys on the mathematics assessment and better than boys on the reading assessment (ibid).

With government cash transfers to schools increasing from 3.4 billion Reals to 11.9 billion Reals between 2000 and 2009, Brazil now has one of the world's highest spending per student levels (Bruns et al., 2012; Organization for Economic Co-Operation and Development (OECD), 2010).

This spending has increased in part due to the increased demand on the system resulting from initiatives like Bolsa Familia and Bolsa Escola that are responsible for the increase in school attendance, but also due to increased GDP spending commitments by the Brazilian federal government. In fact between 2002 and 2008 (the first generation of the Bolsa initiatives) the number of students accessing the funding and attending school went from 8.2 million students to 17.7 million (Bruns et al., 2012). Nationally, Brazil has been reporting an enrolment rate of 97% for children between the ages of 6 and 14 (INEP, 2012), and an improvement in the percentage of the labour force that has completed high school from 30% in 1993 to 60% in 2009 (Bruns et al., 2012). Figure 1.4 illustrates the significant achievements in school completion rates that Brazil has seen between 1993 and 2009 for the Brazilian population aged 26 to 30.

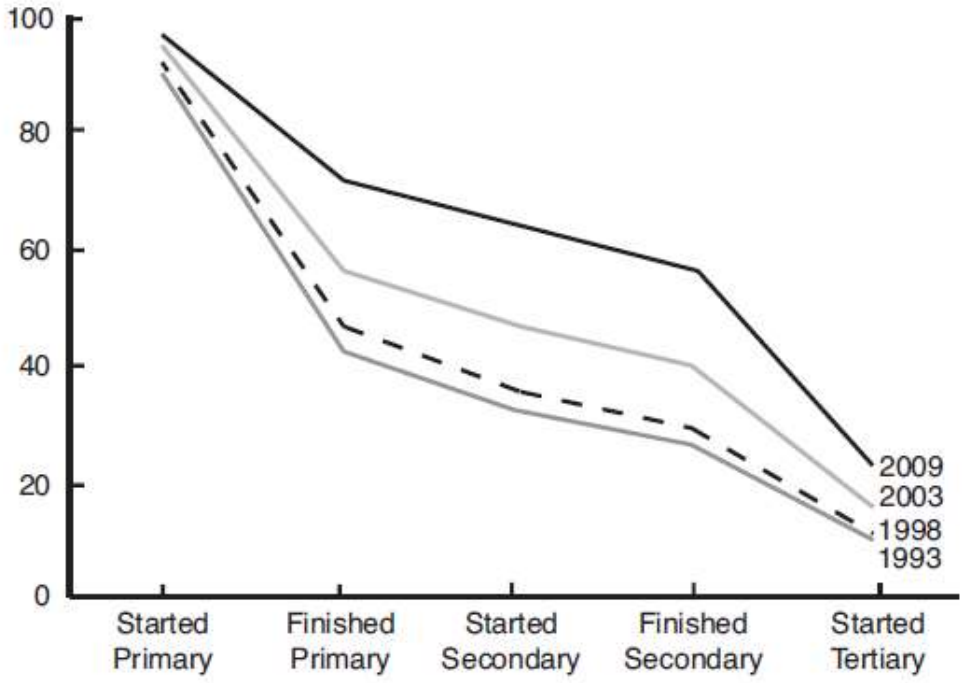


Figure 1.4: Change in Brazilian Educational Attainment 1993-2009
(Percentage of the population aged 26-30)
(Source: Bruns et al., 2012)

Historically, lack of education in Brazil has emerged as a powerful correlate of poverty and a key determinant of inequality (Barros & Ramos, 1996; Garcia et al., 2009; Herran & Rodrigues, 2000). The relationships are likely to be reciprocal and act across generations, for example, being born into poverty may reduce children's educational opportunities and in turn predict future poverty. More recently, Paes de Barros et al (2010) suggested that up to two thirds of wage inequality can be attributed to the unequal distribution of education. These results, however, are beginning to change. Figure 1.5 illustrates how years of schooling is positively related to increased wages for Brazilians aged 26 to 30.

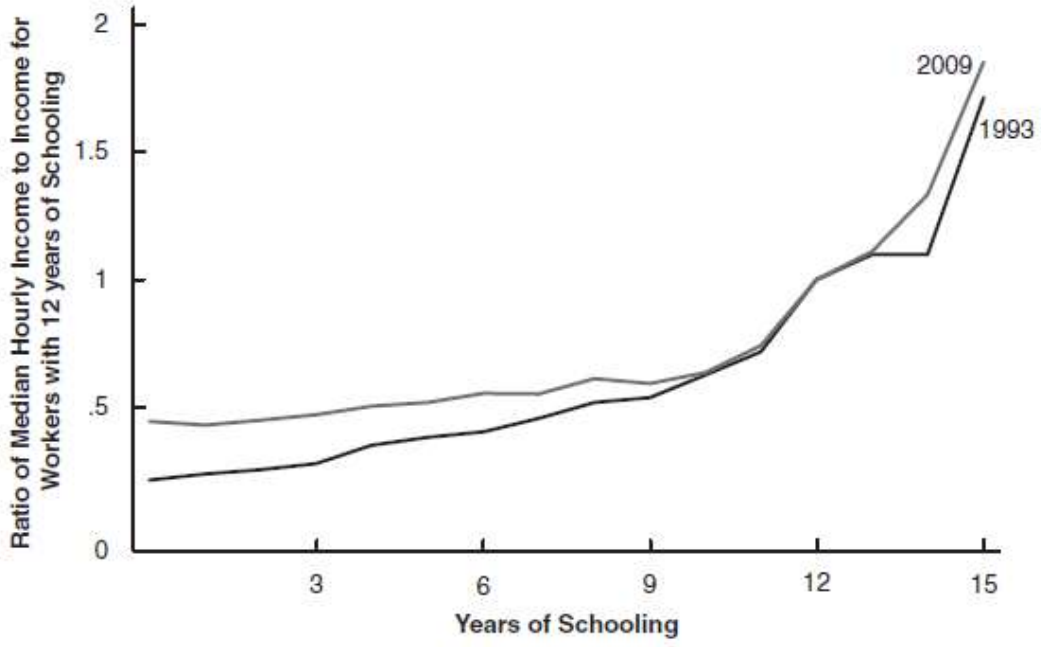


Figure 1.5: Shifts in Real Wages for Workers by Years of Schooling, 1993–2009
(For workers aged 26-30)
(Source: Bruns et al., 2012)

Brazil's educational expansion is largely credited with its rise on the Gini Index (an international measurement index of income inequality) from 0.52 in 1993 to 0.45 in 2009, with 0 being perfect equality, and European nations typically scoring between 0.24 and 0.36 (Bruns et al., 2012). Also interestingly, between 2000 and 2009 Brazil has been more effective in increasing PISA scores for the two lowest income quintiles when compared to the two wealthiest income quintiles (Bruns et al., 2012), serving to narrow, although certainly not eliminate, the income and educational achievement gaps. In the same vein, the rise in student school enrolment in Brazil,

which came primarily from students living in Brazil's lowest socio-economic strata, is believed to be responsible for the significant drop in Portuguese and mathematics achievement on the national SAEB test (Rodrigues, Rios-Neto, & De Xavier Pinto, 2013). Scores and achievement hit their lowest in 2001 as non-repetition polices were implemented, and the largest mass enrolment of Brazilian students entered the educational system. By 2005 Brazil was beginning its recovery although it is believed that the mass enrolment of students from Brazil's lowest socio-economic strata continues to impact school culture and the results of large scale assessments (Biondi & Felicio, 2007; R. Fernandes & Natenzon, 2003; Rodrigues et al., 2013).

1.1.4 *Patterns of Enrolment and Achievement in the state of Paraiba*

The north-east of Brazil, including the state of Paraiba, has historically been valued primarily as hinterland and successive Brazilian governments have focused on primary resource extraction to the detriment of educational progress. Although the north-eastern states represent 28% of Brazil's population, they are only responsible for 13.1% of Brazil's GDP (Limoeiro, 2015). It is estimated that 49% of the population of the north-eastern states live below the Brazilian poverty line, and 59% of this population lives below the extreme poverty line (Limoeiro, 2015). Paraiba, grouped within the north-eastern state policies but lacking the resource richness of its neighbours, has suffered economically and educationally. Paraiba's per capita income in 2009 was one of Brazil's lowest at R$2,297, and it contributes only 6% to the north-east's GDP and less than 1% to Brazil's national GDP (Bruns et al., 2012; Verner, 2004). Exhibiting pronounced relationships between ethnicity, poverty, and education, and reporting illiteracy rates of approximately 30% for citizens over the age of 15 in 2000, Paraiba lags behind the north-eastern economic, social, and educational indicator averages, which are already well behind the national statistics (Verner, 2004). Figure 1.6 illustrates the differences in average years of schooling between the north-eastern states of Brazil and other areas of Brazil for Brazilians aged 26 to 30 between the years of 1990 and 2010. The graph indicates that, as recently as 2010, there remained a two and a half year gap in total average years of education between the south-east and the north-east of Brazil.

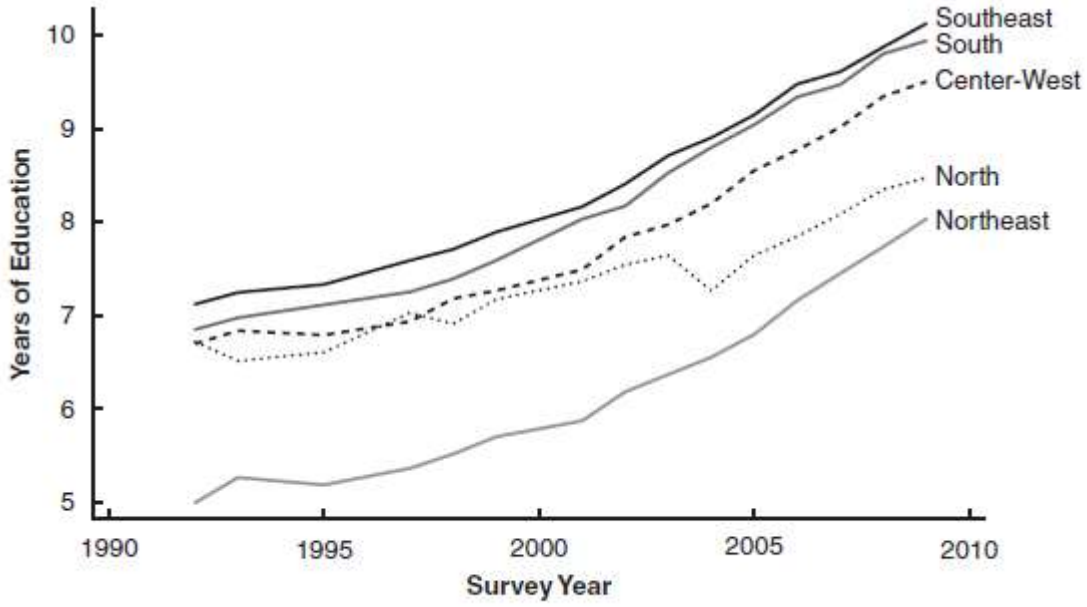
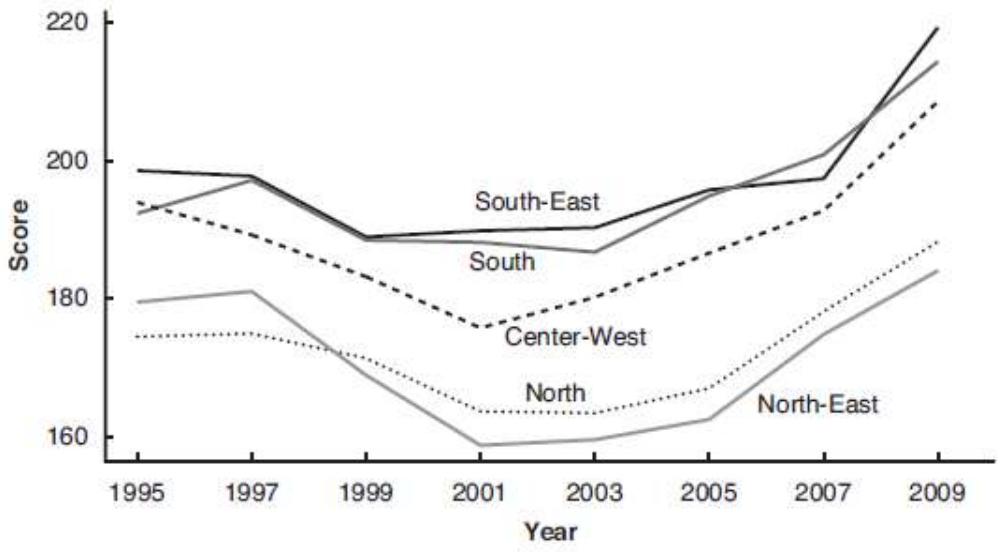


Figure 1.6: Regional Trends in Educational Attainment, 1993–2009
(Years of schooling completed by population aged 26–30)
(Source: Bruns et al., 2012)

Figure 1.7 compares achievement on the national assessment systems of SAEB and/or Prova Brazil of mathematics attainment between the years of 1995 and 2009 between different regions in Brazil. The graph illustrates a long history of disparity in educational achievement between the north-east and the south-east of Brazil.



Note: 1995–2005 scores are from SAEB; 2007 and 2009 scores are from SAEB/Prova Brasil.

Figure 1.7: Fourth-Grade Math Performance by Region, 1999–2009
(Source: Bruns et al., 2012)
Note: The achievement drop between 1995 and 2005 has been hypothesized as resulting from the increased enrolment of children from disadvantaged homes and areas as a result of Brazilian educational policies targeted at those demographic groups.

Ninety-one percent of Paraiba's primary school system is publicly funded, and since 1996 the state has aggressively pursued opportunities to improve educational participation and attainment (Bruns et al., 2012). There is some evidence that Brazilian policies, like Bolsa Familia and mandatory school enrolment policies, have begun to reduce inequalities in the region since the 2000s. The educational system has expanded to meet the population's geographic and economic spread and international inquires have recorded vast improvements in resources and infrastructure (Verner, 2004). Although it is estimated that only 36% of Paraibano public schools have a library, 27% have a recreational area, and 8% have a science lab, Paraiba has increased their schooling enrolment rate to 93% of children aged 7-14 (Bruns et al., 2012; Verner, 2004). Paraiba's primarily public system makes it particularly reflective of Brazilian educational policies, and therefore provides the ideal sample state from which to ground a study pertaining to educational achievements associated with policy implementation.

1.2 *National Assessment Systems*

This section highlights the uses, impact, and limitations of large scale assessments, like national assessment systems. Prova Brasil is specifically examined as one of Brazil's national assessment systems.

1.2.1 *National Assessment Systems*

Although Large Scale Assessments (LSAs) have been in use in some countries since the 1960s, the mid-1990s ushered in an age of prolific development and application of these systems across the globe. National and international LSAs are generally considered to be the result of a demand for greater accountability of educational inputs (Wagemaker, 2014). In the developing world, monitoring the expansion of public education systems with the goal of universal enrolment was the main driver of assessment systems. In their earliest forms, these assessments were usually developed and administered with the technical and financial support of the World Bank (Kamens & Benavot, 2011). More recently, governments of many developing nations are extending their assessment systems with a view to measuring educational achievement, and understanding educational outcomes in a global context (Wagemaker, 2014). More specifically, these newer LSAs are being used by governments to monitor quality and equity, and support accountability and policy (Cox & Meckes, 2016; Tobin, Lietz, Nugroho, Nyamkhuu, & Vivekanandan, 2016). For example, LSAs can be designed to provide information on factors related to student achievement (Damiani, 2016), evaluate interventions, provide diagnostic information, and focus resource allocation (Meckes & Carrasco, 2010). LSAs are also used to identify and address disparities between schools and regions and therefore governments can use them to monitor equitable access to education (Damiani, 2016; Ertl, 2006). Governments have also often used LSAs as a tool for implementing standards and enforcing accountability measures (Cox & Meckes, 2016; Schmidt & Burroughs, 2016), although Schmidt & Burroughs (2016) suggest that LSAs are best suited as a means of conducting research that informs educational policy. Finally, LSA data can be used as leverage in policy making and can support reflexivity in government through the analysis of the data (Cox & Meckes, 2016; Ertl, 2006; Grek, 2009; Meckes & Carrasco, 2010; Schmidt & Burroughs, 2016; Wagemaker, 2014).

The extensive uses of LSAs in both governing and academic circles has fostered an emerging consensus on the legitimacy and necessity of the assessments (Grek, 2009; Wagemaker, 2014). The impact of these LSAs and their accompanying analyses has, however, had a differentiated impact on countries around the world. For example, Italy shows a weak relationship between LSA data and policy (Damiani, 2016), but Chile and Germany show more consistent and strong relationships (Ertl, 2006; Grek, 2009; Meckes & Carrasco, 2010). Interestingly, there are some convincing arguments to suggest that the extent to which LSA data impacts policy is related to the extent to which the media is involved in publicizing the data (Damiani, 2016; Tobin et al., 2016). Generally speaking however, LSAs have an impact on educational policy formation and evaluation across the globe (Cox & Meckes, 2016; Wagemaker, 2014).

Despite considerable support for the use of LSA data, there are significant methodological, practical, and conceptual issues that plague the use of these assessment systems. Methodologically, there are difficulties with outcome measurements that leave acknowledged intangibles unmeasured (Grek, 2009), and some "input" measurements have been considered to be inaccurate proxy variables (Somerset, 2011). Additionally, there are considerable issues with secondary data analysis of LSA data that result in serious critiques of the validity of results (Rutkowski, Gonzalez, Joncas, & von Davier, 2010). These validity issues include the use of the test with consideration to the purpose of the test, the interpretation of the data, and the impact of the analyses (Stobart, 2009). There are also practical concerns with LSA data including a narrowing of curriculum or 'teaching to the test' that can be the result of high-stakes LSAs in particular (Darling-Hammond, Amrein-Beardsley, Haertel, & Rothstein, 2011; Meckes & Carrasco, 2010; Somerset, 2011; William, 2003), issues with assessments being poorly aligned with standards or curriculum (Polikoff, Porter, & Smithson, 2011; Schmidt & Burroughs, 2016), and with the data being used for the evaluation, promotion, pay, and dismissal of teachers (Hallgreen, James-Burdumy, & Perez-Johnson, 2014). The latter having methodological (M. Johnson, Lipscomb, & Gill, 2015; Schochet & Chiang, 2015), practical (Ballou & Springer, 2015; Jiang, Sporte, & Luppescu, 2015), and conceptual (Jackson & Bruegmann, 2009) issues of its own. Finally, there are conceptual issues that range from cultures and histories of assessment systems in countries, states, and schools that are in conflict with LSA formatting and test construction (Damiani, 2016), the data-driven need for continual improvement (Meckes &

Carrasco, 2010), the under-representation of constructs that the tests are purported to assess (William, 2003), and the differences between an amount of an "input" and the effectiveness of a resource in the day-to-day of classrooms (Schmidt & Burroughs, 2016).

1.2.2 *Prova Brasil*

In 1937 the Brazilian National Institute of Educational Study and Research (INEP) was founded to support educational research in Brazil (Mainardes & Gandin, 2013). After the post-dictatorship 're-democratization' of Brazil in 1988, there was substantial state reform and a national assessment system was developed under the umbrella of the INEP for the purposes of collecting data for this educational research. In the 1990s, under the National Educational Bases and Guidelines Law (Lei de Diretrizes e Bases da Educacao – LDB), the nascent national assessment system was further developed into the SAEB assessment, and this SAEB data gained an important role in guiding policies designed to improve the quality of education in Brazil (Menezes et al., 2016). The complementary combination of the law and the SAEB tool led to the development of a National Plan for Education that sets guidelines, goals, and strategies for education in Brazil. After the first SAEB administrations in 1997, 2001, and 2003, technical improvements were made to the test and the sampling strategy was widened, and this new assessment was re-named Prova Brasil (Menezes et al., 2016). Prova Brasil has since been used for the development and monitoring of educational policy in Brazil. More recently, in 2007, the INEP set up the IDEB, which combines the proficiency indicators of Prova Brasil with demographic and socio-economic information about students to rate schools on a scale of 0 to 10. This score is then used as an accountability device to identify schools with low student achievement and target them with technical and financial support (Menezes et al., 2016).

Prova Basil, as a national assessment system, has been praised internationally (The Economist, 2010). Brazil has specifically designed the assessment to use an internationally benchmarked index (OECD, 2010a) and have levels aligned with PISA scores (OECD, 2010a). The test, however, is not without its critics. Some of the weaknesses of the assessment are that a) students, teachers and schools know the testing day in advance and this is believed to have caused issues related to having weaker students not take the test by not appearing in school on the day of the test, b) Prova Brasil is a voluntary low-stakes tests, and this has been linked to low

motivation for students taking the test and therefore can create the impression of lower scores than is actually the case, c) the IDEB uses Prova Brasil only to look at schools' average results instead of looking at improvements for the most vulnerable students or other important analyses, d) the public nature of the Prova Brasil test can lead to 'teaching to the test' and narrowing of the curriculum in order to improve a school's results on the assessment, and e) there are conceptual issues with linking the Prova Brasil results to PISA, which is a test designed for 15 year olds (Schwartzman, 2013).

1.3 *Educational Effectiveness Research*

This section presents a brief outline of the development of the field of educational effectiveness research and its relevance to the current study.

1.3.1 *History, Trends, and Limitations of Educational Effectiveness Research*

Beginning as a reaction to the 1966 Coleman et al.[1] report and the 1972 Jencks et al. study, which concluded that schools had little impact on the outcomes of their students, a body of research called school effectiveness was born. In the 1980s large scale studies using more advanced statistical techniques, like multilevel methodologies, refuted the conclusions of the Coleman and Jencks studies and consistently found that schools did have a measurable impact on their students. School effectiveness research has since been concerned with establishing the *extent* to which schools have a measureable impact on the educational achievement of students (D. Reynolds et al., 2014; Sammons, 1996; Sammons, Hillman, & Mortimore, 1995). More specifically, Mortimore (1991a) states that school effectiveness research is a "search for ways – both adequate and reliable – to measure the quality of a school" (p.214). Thus school effectiveness research searches for, records, tracks, and reports measureable components of schooling quality in order to provide policy makers, school administrators, teachers, students, and other educational stakeholders with useful insights into actions or investments that can be used to improve the quality of schooling.

[1] Although the Coleman report was critical of its own findings, even stating that "a statistical survey can only give fragmentary evidence" (p.3), the conclusion of the report was that schools do not make a difference to student outcomes.

In the 1990s the school effectiveness research field began to ask more complex questions, such as why different schools had different effects on students. This moved the field from a simple school effectiveness model of input $\longrightarrow$ output, to input $\longrightarrow$ process $\longrightarrow$ output models wherein the importance of classroom effects was detected (Chapman, Muijs, Reynolds, Sammons, & Teddlie, 2016; Creemers, Kyriakides, & Sammons, 2010; D. Reynolds et al., 2014). Further developments in the field included the internationalization of the research. This led to more comparisons of effectiveness factors between countries, and between developed and developing nations. It was also at this time that two fields of research, school effectiveness and school improvement, began to make contact with each other (D. Reynolds et al., 2014). School effectiveness, with its largely quantitative research methods and conclusions, and school improvement, which emphasized qualitative research and approaches to schooling, could be combined to provide a more dynamic view of educational processes and could include discussions of both direct and indirect effects and relationships. This mixing of fields and methodological approaches became known as the field of educational effectiveness research. Educational effectiveness studies are typically mixed methods studies that are concerned with questions like "what makes a good school?" and "how do we make more schools good?" (D. Reynolds et al., 2014). This new mixed methods approach and changing emphasis of research questions went some way to addressing the critiques of earlier school effectiveness research.

Critics of school effectiveness research had suggested that the tradition makes assumptions about the nature and purpose of schooling; that the concepts on which the research is based (i.e. school "quality" and "effectiveness") assume a particular set of values that may not be shared by all stakeholders in the system (Mortimore, 1991b; Sammons et al., 1995[2]). Another critique of school effectiveness research, and even educational effectiveness research, is the lack of theoretical development although this tends to ignore the development of a number of theoretical models over the last 30 years (Creemers, 1994; Scheerens & Bosker, 1997). Recent trends in the field, usually based on mixed methods research which can be used to both demonstrate and explain relationships in the data, have also added to the theoretical development of the field. The Dynamic Model (i.e. Creemers & Kyriakides, 2006) provides an example of theoretical development in the educational effectiveness research field and shows promising signs of

[2] Note: These authors are not critics of the field, but critiques of the field are outlined in these works.

validity. Additionally, methodological improvements to multilevel models, structural equation modelling, growth curve modeling, meta-analysis, longitudinal data sets, and better mixed methods research strategies are also contributing to the validity of the results of this field of research (Creemers, Kyriakides, & Sammons, 2010; D. Reynolds et al., 2014; Sammons & Luyten, 2009). An area of fruitful development for educational effectiveness research is the continued pursuit of mixed methods research, especially as the integration and synthesis of quantitative and qualitative methods can foster mutual illumination and therefore have the potential to contribute further to the development of educational effectiveness theories. The current study, with its philosophical basis in Pragmatism, its theoretical base in the Dynamic Model, and its mixed methods research approach, has the potential to contribute further to the field of educational effectiveness research in Brazil.

1.3.2 *Mixed Methods in Educational Effectiveness Research*

A mixed methods approach to educational effectiveness is hinged on the processes of abduction, inter-subjectivity, and transferability, and is a complex and dynamic process whose strength lies in its ability to address the interactive and intricate processes involved in studying social phenomenon like education. It is widely argued that the integrated processes of data collection, analysis, and interpretation in mixed methods studies facilitates the presentation and consideration of a greater range of data, resulting in more holistic, nuanced and valid accounts of complex social phenomenon (Day, Sammons, & Gu, 2008; Jang, McDougall, Pollon, Herbert, & Russell, 2008; Tashakkori & Teddlie, 2010; Teddlie & Tashakkori, 2003). Additionally, the use of both quantitative and qualitative methods in a research study can provide complementary methodological strengths that increase the validity and reliability of the research findings (R. B. Johnson & Onwuegbuzie, 2004). Further, the application of mixed methods to educational effectiveness, particularly studies that achieve conceptual and methodological synergy and that integrate the findings of the qualitative and quantitative strands of data, are likely to address deficiencies in the literature (Day et al., 2008; Jang et al., 2008).

One primary strength of quantitative research is its ability to delineate and examine detailed patterns and degrees of relationships between variables (Bryman, 2008; Robson, 2002). The reliability and the replicability of quantitative research can help to support the generalizability of

the findings (Bryman, 2008; R. B. Johnson & Onwuegbuzie, 2004). Often, because the results are perceived to be independent of the researcher, and can be genealized, quantitative methods appeal to policy makers and enjoy a high degree of credibility in those arenas (R. B. Johnson & Onwuegbuzie, 2004). There are, however, limitations to quantitative research in the field of education. Day, Sammons, and Gu (2008) suggest that quantitative research may limit the researcher's ability to investigate details and influences not captured in the survey data. Johnson and Onwuegbuzie (2004) support this idea as they suggest that quantitative data may not be able to reflect local understandings, and may miss contextual phenomenon. Gorard (2001) further elaborates on the point by contesting that large scale quantitative surveys are restricted in their usefulness because of their limited ability to gather opinions, attitudes, or explanations, although it should be noted that many surveys explicitly seek to collect data on such phenomenon (e.g. PISA student surveys and TALIS teacher surveys). In school effectiveness studies, which have been traditionally driven by quantitative data collection and analysis, findings have been criticized as being inadequate for explaining how and why internal and external conditions influence outcomes and for explaining the relative extent of their effects (Day et al., 2008).

Qualitative research derives its strength from its concern for processes and meaning (Bogdan & Biklen, 2007b). The data generated by qualitative inquiry is more likely to be based in the participants' categories of meanings and experiences. Qualitative inquiry is useful in describing complex and contextualized phenomena in rich detail (R. B. Johnson & Onwuegbuzie, 2004). The transferability of this data, however, has been critiqued and therefore it tends not to garner the attention of policy makers, although case studies can be influential in some contexts. Further, qualitative research tends to be more time and cost intensive than quantitative research, and is seen to be more easily influenced by researcher bias (R. B. Johnson & Onwuegbuzie, 2004). Summarizing this sentiment Kvale (2006) suggests that qualitative research interviews entail "a hierarchical relationship with an asymmetrical power distribution of interviewer and interviewee" (p.484), however, most qualitative researchers argue that when qualitative methods are applied reflexively, they have the capacity to provide access to the meanings people make of their experiences and realities, and are an appropriate and effective way to research in the social sciences (Miller & Glassner, 1997).

Proponents of mixed methods research suggest that the major advantage of its use is that it is likely to provide complementary strengths and non-overlapping or compensatory weaknesses, and can answer a more diverse set of questions whilst providing more complete and comprehensive knowledge (Creswell, Plano Clark, Gutmann, & Hanson, 2003; R. B. Johnson & Onwuegbuzie, 2004). Teddlie and Sammons (2010) and Punch (1998) assert that quantitative inquiry facilitates an understanding of the scope and the patterns of the phenomenon, while qualitative inquiry gives the researcher a more detailed and empathetic understanding of the phenomenon. Pring (2000) articulates these processes as he states that, "[t]he qualitative investigation can clear the ground for the quantitative – and the quantitative be suggestive of differences to be explored in a more interpretive mode" (p.56). An example of this symbiotic relationship is that quantitative results can be helpful in directing qualitative sample choices, and qualitative inquiry can help in developing a more useful quantitative instrument for the study (R. Johnson, Burke, Onwuegbuzie, & Turner, 2007). Teddlie and Sammons (2010) go on to state, "[i]t is the generation of new knowledge that goes beyond the sum of the QUAL and QUAN components that makes MMR so valuable in understanding social phenomena, such as educational effectiveness" (p.116). Further, mixed methods researchers argue that complex real world contexts demand research that takes multiple perspectives and experiences into account and that the pluralistic methods offered by mixed methods are most likely to yield results that acknowledge that some phenomena are contextual and others have much wider applications and ramifications (Siraj-Blatchford, Sammons, Taggart, Sylva, & Melhuish, 2006). Cohen, Manion, and Morrison (2011) and DeVaus (2004) further argue that mixed methods is a powerful way to demonstrate concurrent and content validity; that the strengths of both the qualitative and the quantitative inquiry combine to address the major issues surrounding both internal and external validity. Arguments previously made regarding the paradigmatic weaknesses of using mixed methods are fading from educational research literature, and so the major prohibitive factors for this research remain the amount of time and money required for such complex research designs, and the difficulty of the task for a solitary researcher (R. B. Johnson & Onwuegbuzie, 2004).

1.4 *Factors of Educational Progression in Related Studies*

This section outlines both the background factors that must be accounted for when pursuing an investigation into the effects of schooling on educational outcomes, and the school variables that

are the subject of this study. The socio-economic status of students is an important background factor that must be taken into consideration during any investigation into the effectiveness of education, and has been shown to have influence over student achievement in many countries including Brazil (J. Soares, 2006). Educational resources and teacher qualification have been shown to be of great significance in educational outcomes in Brazil since the 1980s. World Bank projects and Brazilian policies continue to focus on these aspects of education in Brazil (Crespo Soares et al., 2000) and these are therefore the variables of interest to this study.

1.4.1 *Family Socio-Economic Status*

The importance of accounting for student 'intake' or background characteristics in any attempt to determine the effects of schooling has been widely recognized for some time (see (Goldstein et al., 1993; Gray, Jessons, & Sime, 1990; Mortimore, 1991; Sammons et al., 1995 for example). In the Brazilian context, the influence of the socio-economic background of students on educational achievement has been extensively researched and applied in investigations into school effectiveness. Arias et al. (2002), Arias, Yamada, & Tejerina (2004), Fernandes (2005), Harbison & Hanushek (1992), Hasenbalg & Valle Silva (1990), and Souza & Valle Silva (1994) all argue that the socio-economic characteristics of students must be considered and accounted for in any investigation into the effects of schooling in Brazil as they are consistently shown to be a strong predictor of educational attainment and achievement.

In Brazil, the socio-economic background factors that appear to have the greatest influence on students' achievement are parental education levels, family income levels, and home resources. Cavalcanti et al (2010) and Ferreira & Veloso (2006) have both identified the importance of maternal education levels on student achievement in Brazil, and more recently a study by Rodrigues de Oliveira, Belluzzo & Toldo Pazello (2013) confirmed the effects of both maternal and paternal education levels on student outcomes in Brazil. Family income levels or family wealth and resource levels have also been frequently and recently tied to the educational outcomes of students in Brazil (Brock & Schwartzman, 2004; Martins & Veiga, 2010; Rodrigues de Oliveira et al., 2013). These socio-economic variables or proxy variants of them are not unique to Brazil and are often apparent in international educational effectiveness studies, including those of the developed world (see Kyriakides & Creemers, 2008 for example). In

Brazil there is some evidence to suggest that school effects can be larger than family background characteristics (Crespo Soares et al., 2000), however, these results should be interpreted with caution as unobservable characteristics of students may account for a sizable proportion of variance (Biondi & Felicio, 2007). This study does not use the aggregated school level SES of students and there have been some studies to suggest that this is an important control (e.g Sirin, 2005), however, this approach was not taken in this study and could be considered for future studies. The importance of accounting for the socio-economic background characteristics of students in Brazil and abroad has been accepted within the circles of literature addressing educational effectiveness, and studies that do not adequately control for students' background characteristics and prior attainment may skew research results (Sammons, 1996).

1.4.2 *School Resources*

Although research conducted in the United States, Europe, and Australia has typically found school infrastructure and resources to be of limited significance to effective schooling (Hanushek, 1986, 1989; Purkey & Smith, 1983; Sammons et al., 1995), researchers in Latin America have accumulated research that suggests the opposite (Murillo, 2007; Murillo & Román, 2011; Velez, Schiefelbein, & Valenzuela, 1994). In Harbison and Hanushek (1992)'s survey of school effectiveness research in developing nations, 65% of the studies concluded that school infrastructure (libraries, bathrooms, access to running water etc.), access to learning resources (textbooks and writing materials etc.), and teacher education (teacher subject knowledge and pedagogical training) had a significant effect on school performance. Other studies undertaken by the Inter-American Development Bank, the World Bank, and researchers have, in various combinations, supported and advanced these conclusions (Barbosa, Fernandes, & Franco, 2001; Biondi & Felicio, 2007; Espósito, Davis, & Nunes, 2000; Franco, Ortigão, & Albernaz, 2007; Gaviria, Martínez-Arias, & Castro, 2004; Greenwald, Hedges, & Laine, 1996; Harbison & Hanushek, 1992; Hedges, Laine, & Greenwald, 1994; Murillo & Román, 2011; OECD, 2010b; J. Soares, César, & Mambrini, 2001; Teddlie & Reynolds, 2000; Willms & Somer, 2010). Even Hanushek's more recent work states that the "importance of resources may vary with the level of resources" (Hanushek, 2005 p.5) and has noted that perhaps after a certain threshold of the resources typically measured has been achieved that different resources or significantly more resources would be required to see effects of both educational and statistical significance. An alternate argument also appearing in the literature suggests that school

resources always do make a difference, but there is no consensus on the magnitude of these effects (Teodorovic, 2009). Kyriakides, Creemers, Antoniou, & Demetriou (2010) contend that perhaps school level factors like the provision of sufficient learning resources has some direct but also may have indirect effects on student learning that can therefore be difficult to measure. In Brazil, the quantity and quality of school learning resources are still considered inconsistent and incomplete and are therefore an important and relevant variables to include in a study of educational effectiveness (Gamboa & Waltenberg, 2012; Guzel & Berberoglu, 2005).

1.4.3 *Teacher Qualification*

The three core dimensions of teacher competence are subject specific content knowledge, subject specific pedagogical knowledge, and generic pedagogical knowledge (Baumert et al., 2010; Shulman, 1986, 1987). All three aspects of teacher competence are generally thought to contribute to the quality of teaching and learning, and there is significant evidence to support these assumptions (see Clotfelter, Ladd, & Vigdor, 2007; Darling-Hammond, Berry, & Thorson, 2001; Willms & Somer, 2010; Wilson, Floden, & Ferrini-mundy, 2001 for example). There are, however, some critiques of this literature that argue for a greater distinction between and understanding of the effects of subject specific knowledge and subject specific pedagogical knowledge (Wayne & Youngs, 2003).

In the teacher effectiveness literature concerned with subject specific knowledge, both practical (Baumert et al., 2010; Grossman & Schoenfeld, 2005; Mewborn, 2003) and conceptual (Baumert et al., 2010; Leinhardt, 2001; Mewborn, 2003) understanding of the subject material is considered to be related to teacher competence and increases in student educational outcomes. Further, teacher certification in a specific subject, as a proxy for practical and conceptual knowledge, appears to be correlated with student achievement in the same domain, and findings from these studies tend to indicate a positive relationship (Baumert et al., 2010; Rodrigues de Oliveira et al., 2013). These links, however, are debated in the literature and there is certainly some evidence to suggest that teacher subject knowledge rarely correlates strongly with student achievement (see Creemers & Kyriakides, 2006; Darling-Hammond, 2000 for example), although it is suggested that the relationships of some these factors may be curvilinear (Creemers & Kyriakides, 2006). Pedagogical knowledge and subject specific pedagogical knowledge, on

the other hand, appear to have a more established and stronger effect on students' educational outcomes (Bransford, Darling-Hammond, & LePage, 2005; Bransford, Derry, Berliner, & Hammerness, 2005; Grossman & McDonald, 2008; Grossman & Schoenfeld, 2005; Hiebert, Morris, Berk, & Jansen, 2007; Munby, Russell, & Martin, 2001; M. Reynolds, 1989). Teacher qualification, as an umbrella for these domains, is a continued area of concern and targeted policy development in Brazil (Gamboa & Waltenberg, 2012; Guzel & Berberoglu, 2005).

1.5 Chapter Summary

The start of this chapter provided an overview of the development of Brazilian educational policy and its current focus on teacher qualification, de-centralization, and funding changes designed to increase resources to schools. The most significant of these funding changes are outlined in the FUNDEF, FENDEB, and the Bolsa Escola/Bolsa Familia legislation. As a result of these changes Brazil has seen some significant gains on international and national assessments, and major gains in enrolment. The north-eastern state of Paraiba has a primarily publicly funded education system and has aggressively pursued access to the federal funding being made available in order to improve it systems. Paraiba lags behind other north-eastern states in economic and educational measures, and the north-east is well behind other areas of Brazil in these measures. Paraiba, therefore, makes an interesting and relevant choice of location for this study. The Prova Brasil national assessment system of Portuguese and mathematics is the data base from which the quantitative research of this study draws. While this system is subject to the methodological, practical, and conceptual limits typical of large scale assessments, it also is a useful tool from which to observe general trends related to teacher qualification and resources levels and effects in schools and on students. The links between achievement on the PISA assessment and the Prova Brasil assessment are particularly important to Brazil as it determines the success of its system and shapes its educational policies on the outcomes of these assessments. This research study employs a mixed methods approach to educational effectiveness using the latest theoretical development in the field – the DASI model. These methodological links are outlined in this chapter but will be explored in greater depth in Chapter 2. Finally, the chapter introduces the theoretical and empirical literature related to the factors of progression examined in this study: the socio-economic background characteristics of students, school resources, and teacher qualification.

Chapter 2: Theoretical Framework

The purpose of this chapter is to bring together the literature outlined in the previous chapter with the aim of illustrating the philosophical and theoretical frameworks of the study. In addition, these frameworks will be applied to inform the scope, structure, organization, and relevance of the aims and questions of this study. Models are presented that illustrate the conceptual development of the study and the scope and sequence of each phase of the study.

2.1 *Justification for the Research*

This study examines the effects of Brazilian educational policies that have increased funding for school resources and teacher qualification on students' Portuguese and mathematics achievement and how these policies have impacted schools from the perspectives of teachers teaching in Paraiba. The central research question that guides this study is: How have recent Brazilian educational policies related to increased resources and teacher qualification (i.e. FUNDEF, FUNDEB and the National Policy on Teacher Education) affected schools and students' educational outcomes in Paraiba, Brazil? The study employs a dynamic approach to school improvement (DASI) model to gauge the impact of resource and teacher qualification policies and their implementation - via the core DASI concepts of *frequency*, *focus*, *stage*, *quality*, and *differentiation* - on schools and on students' outcomes (see Creemers & Kyriakides, 2006).

Phase I of the study examines the extent to which Brazilian educational investments in school resources and teacher qualification may predict students' academic outcomes as measured by the Prova Brasil tests of Portuguese and mathematics at the beginning of middle school (fourth grade in 2007, and fifth grade in 2009-2013) and at the end (eighth grade in 2007, and ninth grade in 2009-2013) in the years for which data is available (2007, 2009, 2011, and 2013). The Prova Brasil data sets provide information with which to explore different school effects by subject, a gap acknowledged in the educational effects literature for Latin America (Willms & Somer, 2010). Additionally, the Prova Brasil data sets also support inquiries that distinguish between teacher subject knowledge and teacher pedagogical training, another recognized gap in the teacher educational effectiveness literature (Wayne & Youngs, 2003). Kyriakides (2006) further argues that cross-national perspectives in educational effectiveness literature are almost non-existent, a gap he deems "damaging" to the theoretical and empirical development of the field.

The study has the potential to contribute to the validation of the DASI model as the results of this study will show how policy effects can be viewed through the DASI core concepts and also how they may provide a blue print for potential policy adjustment in further studies. Finally, the mixed methods research design enables the researcher to capture some of the characteristics of educational contexts that usually go unmeasured by the traditional correlational survey data of school effects studies (Häkkinen, Kirjavainen, & Uusitalo, 2003). The need for mixed methods approaches to school effectiveness studies is becoming increasingly acknowledged (Scheerens, 2000; Teddlie & Sammons, 2010). This study contributes to the Latin American educational effectiveness literature by examining the relationships between school resource and teacher qualification variables over time in Brazil and further provides some insight into how educational policies related to school resource and teacher qualification funding may be affecting Brazilian educational achievement.

2.2 *Research Questions*

The central research question that guides this study is: How have recent Brazilian educational policies related to increased resources and teacher qualification (i.e. FUNDEF, FUNDEB and the National Policy on Teacher Education) affected schools and students' educational outcomes in Paraiba, Brazil? The study will employ a dynamic approach to school improvement (DASI) model to gauge the impact of resource and teacher qualification policies and their implementation - via the core DASI concepts of *frequency*, *focus*, *stage*, *quality*, and *differentiation* - on schools and on students' outcomes (see Creemers & Kyriakides, 2006). This research is organized into two Phases and will address three primary questions:

Phase I

1) What are the relationships between the *frequency* (DASI) of school resource variables and students' attainment on the Prova Brasil assessment?
    a) Are there specific school resource variables that are significantly related to student attainment on the Prova Brasil assessment?
2) What are the relationships between the *frequency* (DASI) of teacher qualification variables and students' attainment on the Prova Brasil assessment?

a) Are there specific teacher qualification variables that are significantly related to student attainment on the Prova Brasil assessment?

Phase II

3) What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of school resource and teacher qualification policy implementation and their effects on schools and students?

a) What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of school resource policy implementation and their effects on schools and students?

b) What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of teacher qualification policy implementation and their effects on schools and students?

2.3 *Philosophical Framework*

This section introduces pragmatism as the philosophical foundation on which the mixed methods methodology of this study rests, and then presents a secondary complementary philosophical approach that considers the benefits of a mixed methods study in the social sciences and fields of educational research directly. Together these frameworks provide the rationale for the mixed methods methodology employed in this research. Pragmatism, as developed by Pierce (1877, 1878), James (1906b) and Dewey (1910) offers the general philosophical basis upon which a mixed methods approach to research can be framed. The complementary philosophies of MacIntyre (1984), Pring (2000), and Stenhouse (1975) are then used to apply the concepts of Pragmatism directly to educational research primarily by highlighting the limitations of an educational research approach that does not include both qualitative and quantitative strategies for data capture. Combining these complementary philosophical approaches provides a relevant framework through which to explore the educational policies, practices, and progress of Brazil.

2.3.1 *Pragmatism*

James (1906) asserts that a pragmatist approach to truth and meaning turns its back on abstraction, fixed principles, closed systems, and pretended absolutes in favour of adequacy, facts, and action. Rejecting arguments of paradigm incompatibility by viewing truth as a tangible relationship we form with our experiences and express linguistically, Peirce challenges researchers and academics to "know what we think, to be masters of our own meaning" (Peirce, 1878 p.286). A pragmatic approach to a set of research aims and questions is centered on fundamental notions of truth making as a process that ultimately gravitates towards a center of satisfactory, workable, and warranted meaning. As such, pragmatism paves the philosophical path towards the application of a spectrum of methodological approaches and the employment of mixed methods in educational research. Originating with Peirce's arguments, pragmatism brings truth into a real and measureable relationship to experience with the statement,

> *…we shall be perfectly safe so long as we reflect that the whole function of thought is to produce habits of action; and whatever there is connected with a thought, but irrelevant to its purpose, is an accretion to it, but no part of it… To develop its meaning, we have, therefore, simply to determine what habits it produces, for what a thing means is simply what habits it involves… Thus we come down to what is tangible and practical, as the root of every real distinction of thought, no matter how subtle it may be; and there is no distinction of meaning so fine as to consist in anything but a possible difference of practice* (Peirce, 1878 p.294).

For Peirce, habits are the repeated actualizations of truth utterances in practice, thus statements are true by their functionality in the world of experience. James' expansion of Peirce's assertions offer academics a foundation for the plurality of truths by arguing that truth statements are not stagnant representations of phenomenon, but instead that truth statements reflect a negotiation and a process. James argues that "all the sanctions of a law of truth lie in the very texture of experience. Absolute or no absolute, the concrete truth for us will always be that way of thinking in which our various experiences most profitably combine" (James, 1906b p.1). Dewey expands on James' concepts of a "workable" truth with the statement, "formulations of conditions, discovered in the course of inquiry itself, which further inquiries must satisfy if they are to yield warranted assertibility as a consequence" (Dewey, 1938 p.16). Thus a pragmatic truth statement is made based on its utility and its ability to consistently and satisfactorily represent an experience, and it is judged by the success with which it works. A pragmatic approach, therefore, takes the view

that theories are instruments, not solutions, and consequently that researchers must weight, consider, and apply methodologies that most completely and appropriately answer their questions (R. B. Johnson & Onwuegbuzie, 2004; Teddlie & Tashakkori, 2003).

The central tenet of a pragmatist approach when applied to research methodology lies in its dismissal of the incompatibility of rationalism and empiricism in favour of research designs where the "satisfactoriness [of the conclusions] has to be measured by a multitude of standards" (James, 1906b p.1). Dismissing what he terms "imaginary distinctions" between beliefs that "differ only in their mode of expression" (Peirce, 1878 p.290), Peirce argues that, "the person who confesses that there is such a thing as truth, which is distinguished from falsehood simply by this, that if acted on it should, on full consideration, carry us to the point we aim at and not astray, and then, though convinced of this, dares not know the truth and seeks to avoid it, is in a sorry state of mind indeed" (Peirce, 1877 p.1). The pragmatist belief in a satisfactory and workable truth necessarily concludes that regardless of the methods, if it is a truth statement, it must lead to a centre of real representation of the phenomenon at the point in time that it is being investigated. When these pragmatist views are synthesized and applied, a theoretical justification for quantitative analysis as complementary and augmentative to qualitative analysis is found. Proponents of a pragmatic approach to a mixed methods study argue that this approach can answer a more diverse set of questions more comprehensively (Creswell et al., 2003; Jang et al., 2008; R. B. Johnson & Onwuegbuzie, 2004) and deny any "a priori basis for determining the limits on meaningful communication between researchers who pursue different approaches to their field" (Morgan, 2007 p.67).

As Pring (2000) suggests, no practice stands outside of a theoretical framework, and it is therefore the purposeful and comprehensive delineation of our theoretical perspective that grounds our logic, states our assumptions, clarifies our meanings, and drives the methodological choices that best answer our questions (Crotty, 1998). The process of philosophical and theoretical delineation compels the researcher to engage in a reflective deliberation of practice (Oancea, 2011; Pring, 2000). The function of adopting a pragmatic approach to a particular set of research aims and questions is to articulate the researchers' beliefs about truth, meaning, and clarity, and guide the researcher in their methodological approach to the investigation.

Essentially and necessarily developing the framework with which researchers can validate and replicate their results, pragmatism as a theoretical approach can provide the philosophical consistency required for rigorous educational research.

2.3.2 *Pragmatism and Mixed Methods in Educational Research*

MacIntyre (1984) acknowledges the importance of statistical regularities in studying and understanding human behaviour, and notes that it is "crucial to notice their [elements of unpredictability in human behaviour] intimate relationship to the predictable elements" (p.102). MacIntyre's argument, however, goes on to outline two important critiques of accepting statistical patterns as law-like generalizations that are of particular concern to this study. MacIntyre contends that "[j]ust as unpredictability does not entail inexplicability, so predictability does not entail explicability" (p.102), which warns the researcher to draw their conclusions carefully and to denote the limitations of quantitative findings as well as to consider a second approach to research that addresses the patterns of human behaviour that fall outside of statistical predictability or explanation. This critique can be applied to the results of a large scale, econometric approach to questions concerned with "what works" in education. MacIntyre's (1984) second critique is that, "[i]t follows that the description of their [human] behaviour at the level of activity – in terms of decisions, relationships, goals and the like – would be very different in its logical and conceptual structures from the description of behavior at the level of electrical impulses" (p.100). Here MacIntyre encourages a researcher to observe the statistical patterns (referred to above as 'electrical impulses"), but also to enrich one's understanding of what these "electrical impulses" mean by observing and recording how they influence human behaviors, decisions, interactions, and relationships. The crux of MacIntyre's argument, as it applies to this study, is that statistical patterns are an important source of information about human behaviour and interactions, but that conclusions based on this kind research should be drawn carefully and thoughtfully, and should include some other form or way of "knowing" or observing humans. This philosophical critique applies both to a solely quantitative approach, and to research methods more generally.

MacIntrye (1984) then addresses educational research issues more directly as he states that, "[w]e cannot, that is to say, characterize behavior independently of intentions, and we cannot

characterize intentions independently of the settings which make those intentions intelligible both to agents themselves and to others" (p.206), and further that, "in successfully identifying and understanding what someone else is doing we always move towards placing a particular episode in the context of a set of narrative histories, histories both of the individuals concerns and of the settings in which they act and suffer" (p.211). Pring (2000) supports MacIntyre's argument as he states,

> *Since an 'educational practice' is where individuals 'make sense' (starting from their different perspectives) of experience, struggle to understand, and come to find value in different things and activities, then it cannot be grasped within general laws or theories. Educational enquiry becomes focused upon individuals, making explicit what is unique and distinctive of the 'thinking life' of each, and interpreting what is seen through the personal ideas which make each action intelligible* (p.33).

MacIntyre and Pring both suggest that contextual information, usually in the form of narratives and dialogue, are essential to understanding people's actions and experiences. The significance or meaning of an event is best understood by engaging in a dialogue wherein the researcher asks the interviewee to explain what they did and why, what significance they attach to the event, and the ways in which it was perceived by them. This mutual understanding forms the basis of a narrative from which a researcher can begin to explain a situation or context. MacIntyre goes as far as to state, "it does follow of course that all attempts to elucidate the notion of personal identity independently of and in isolation from the notions of narrative, intelligibility and accountability are bound to fail. As all such attempts have" (p.218).

It follows that the complexity of educational research as a social practice requires a dynamic and flexible range of research methods from which the researcher can draw the tools that most appropriately and comprehensively address their research interests. Stenhouse (1975) ties together the ideas of both MacIntyre (1984) and Pring (2000) within the context of an educational research practice. Stenhouse (1975) addresses the importance of quantitative research – what MacIntyre refers to as statistical patterns of predictability – when he says, "we can perhaps generalize about variables likely to be important and needing therefore to be monitored" (p.136), and further goes on to state, "what is needed is a grasp of the range of problems and effects with enough contextual data to … anticipate what sorts of things are likely

to happen …" (p.136). Stenhouse's argument invites the researcher to use statistical data in a speculative and suggestive style; as instruments of exploration to be used in addition to contextual qualitative data. Pring (2000) concludes the argument perfectly as he states that the opposition between quantitative and qualitative research paradigms is unnecessary, that, "the qualitative investigation can clear the ground for the quantitative – and the quantitative be suggestive of differences to be explored in a more interpretive mode" (p.56). The philosophical stances of MacIntyre, Pring, and Stenhouse encourage a critical reflexivity of this study's empirical results and facilitates the application of a mixed methods approach wherein a qualitative investigation complements and clarifies the findings of the quantitative results. This works to improve the ecological validity of the study and can more precisely address the limitations of its findings.

2.4 *Theoretical Framework*

This section presents a summary of the theoretical development of the educational effectiveness research field. The progress over time of theoretical development leads to the theoretical model employed in this study – the dynamic approach to school improvement (DASI) model.

2.4.1 *Theoretical Development in Educational Effectiveness Research*

Over the half century of educational effectiveness research development, theory has been a source of constant discussion and has long been considered a weak point of the field by both promoters and detractors (Caro, Sandoval-Hernández, & Lüdtke, 2014). All writers on the topic agree that educational processes that occur in a classroom are far more complex than a simple input-output economic model as they were first addressed by the earliest educational effectiveness studies such as the Coleman et al. (1966) report (Vandenberghe, 1999). These simple models, it is argued, led to simplistic understandings of the nature of schools, students, and teachers. Decisions regarding constructs used in surveys and large scale assessments from which most educational effectiveness research is drawn, primarily relied on "common sense" and statistical criteria which assumed that a number of simple items would add up to proxy measures of concepts worth measuring (Caro et al., 2014). Critics claim that this lack of theoretical development and consideration led to a practice of "fishing for correlations" and encouraged policy makers to attempt to replicate "high-performing" systems across the globe with the hopes

of bringing equal success to widely varied contexts (Harris, Adams, Jones, & Muniandy, 2015). Conclusions in the field have, by some, been considered to be limited by these theoretical and methodological practices to defining "what works" rather than understanding why certain items might work in particular contexts or circumstances, and relegated anything considered "un-measurable" to a black box along with the agency of the actors in schools and the contexts in which they operate (Caro et al., 2014; Harris et al., 2015). Despite these limitations, proponents of the field argue that a developed body of knowledge that boasts an advanced understanding of factors associated with student outcomes on large scale assessments has emerged (Harris et al., 2015).

A recent review of the educational effectiveness research field suggests that theoretical application in empirical work may be limited. In a review of 109 international school effectiveness studies, Scheerens (2013) found that only six studies were theory-driven from the outset or 11 if substantial conceptual models are included. There are, however, a number of educational effectiveness studies that have linked their findings to various theoretical models (MacBeath & Mortimore, 2001; Sammons, Thomas, & Mortimore, 1997) or have sought to generate new theoretical insights (Day, Gu, & Sammons, 2016). The theoretical or conceptual models used varied from the new dynamic model to micro-economic models, and organizational science perspectives like the competing values framework developed by Quinn and Rohrbaugh (1983) (Creemers & Kyriakides, 2006; Scheerens, 2013). A further limitation of the educational effectiveness field was its development from two separate strands of research: school effectiveness and school improvement. School effectiveness research was focused primarily on student outcomes and the characteristics (factors) of classrooms, schools, and systems associated with these student outcomes from a largely quantitative methodological approach that did not address processes of change (Creemers & Kyriakides, 2010c). School improvement, on the other hand, looked primarily at the processes of change, largely using qualitative methodologies, but largely ignored the impacts of these changes on students (Creemers & Kyriakides, 2010c). In the early 2000s, however, these two fields began to combine their aims and results, and this has led to greater understanding and discussion around the effects of education on students in classrooms in diverse contexts and with a broader consideration of student outcomes.

These critiques of research design, methodology, and statistical techniques over time have led to considerable methodological, and more recently, theoretical developments in the educational effectiveness research field (Creemers & Kyriakides, 2010b; H. Goldstein, 2003; Sammons & Luyten, 2009). Educational effectiveness theory first developed primarily as more precise definitions of concepts and the relationships between concepts (Creemers, 2002; Creemers & Kyriakides, 2006, 2010b; Levine & Lezotte, 1990; Mortimore, Sammons, Stoll, Lewis, & Ecob, 1988; Scheerens, 1992; Scheerens & Bosker, 1997). Then, in the mid-1990s, a comprehensive model was developed in the Effective School Improvement Project (see Creemers, 1994) which attempted to relate different factors operating at different levels to the outcomes of schooling. Empirical testing of the model in the early 2000s showed that this model for educational effectiveness studies had some validity, as in the de Jong, Westerhof, & Kruiter (2004), Driessen & Sleegers (2000), Kyriakides, Campbell, & Gagatsis (2000), Kyriakides & Tsangaridou (2008), Kyriakides (2005), and Reezigt, Guldemond, & Creemers (1999) studies, for example. Despite these promising signs, a synthesis of these studies by Kyriakides (2008) resulted in suggestions for the further development of a better theoretical model.

The comprehensive model's framework was based on the analysis of a range of theories and case studies, however, the framework encountered some challenges (Reezigt & Creemers, 2005). It was determined that it was difficult to isolate factors that worked the same in all countries, even at an abstract level. The effects of these factors also ranged from positive to negative depending on the national context. Further, there were large differences between schools in the same national context, which rendered empirical evidence for effectiveness factors inconclusive (Reezigt & Creemers, 2005). At the same time, key core concepts crucial to the further development of the educational effectiveness field were reinforced and further advanced. Firstly, it was determined that school improvement factors and processes are firmly embedded in the educational context of a country (Reezigt & Creemers, 2005). Secondly, longitudinal data sets are required to enhance the validity of causal inferences (Creemers & Kyriakides, 2006). Thirdly, the conclusions of educational effectiveness studies that have been primarily focused on cognitive function outcomes may be an impoverished idea of the functions of an educational system (Bosker, 1990; Creemers & Kyriakides, 2006; Kyriakides, 2005; Opdenakker & Van Damme, 2000). Fourthly, the influences of achievement are indeed multilevel (Creemers &

Kyriakides, 2006; de Jong et al., 2004; Kyriakides, 2005), and that the relationships between these factors at different levels may be more complex than assumed (Campbell, Kyriakides, Muijs, & Robinson, 2004; Kyriakides et al., 2000). Further, school level factors have the largest direct and indirect effect on students in classrooms and are therefore well placed to explain effectiveness over time (Creemers & Kyriakides, 2010a, 2010b). Finally, national, local, and school policies are essential to creating the learning environments in which teachers and students operate, and support offered to teachers to implement policy is a key element of the policy implementation process (Creemers & Kyriakides, 2010b). These key core concepts derived from a synthesis of more recent school effectiveness studies led to the further development of a theoretical model for educational effectiveness studies, one that attempts to examine not just *what* is effective, but *why* something might be effective, and under what circumstances, or in what contexts it might be effective (Creemers & Kyriakides, 2015). The result is the dynamic model of educational effectiveness.

2.4.2 *The Dynamic Model*

The basic rationale of the dynamic model is to take the primary processes of teaching and learning as the starting point of development, while recognizing that school level factors facilitate effective teaching factors and national contexts and policies, in turn, effect school conditions (Scheerens, 2013). The dynamic model builds on its predecessor, the comprehensive model, but additionally has a great interest in examining both dependant and independent (i.e. classroom, school, and national context level) variables over time, enables the consideration of non-linear relationships between these dependant and independent variables, has an interest in cross-level interactions and interrelations between factors at each level, accepts a broad range of student outcomes (i.e. not just cognitive function), and emphasizes the dimensions of effectiveness-enhancing factors. More specifically, the dynamic model has been built to take into account the key core concepts (see section 2.4.1) upon which educational effectiveness studies should be based. These key core concepts are best and most recently outlined by Maag Merki, Emmerich, & Holmeier (2015) as:

Educational Effectiveness Research is Multilevel in Structure: "success" or effectiveness can only be understood in its hierarchical structure, i.e. the individual student level, the classroom level, the school level, and the educational system level.
Dynamic Perspective: there are complex interdependencies at each level and between levels. Factors in each level are adaptive, dynamic, and contextually sensitive co-constructed processes.

Linear and Non-Linear/Direct and Indirect Effects: the connections between contexts and student learning are complex and cannot be adequately represented by simple input-output models.

Differential Effects: theoretical models must take into account general and differential effects.

Longitudinal Perspective: educational effects vary over time and are best explored using longitudinal models.

Multi-Dimensional Output Criteria: cognitive function is only one of many possible and acceptable outcomes that can be measured in an educational effectiveness study.

With these considerations in mind, the dynamic model uses five dimensions with which to assess, monitor, and examine educational effectiveness. These five dimensions are: frequency, focus, stage, quality, and differentiation. These dimensions are defined below as per Creemers & Kyriakides (2006):

Frequency: this refers to a quantitative measurement of factor(s) on outcome(s).

Focus: this is the function of a factor at the classroom, school, or system/national level. Focus has two dimensions of measurement – specificity and purpose. The specificity of a factor is how it is used or supported in practice. For example, if computers are provided to a classroom, is there specificity of how, why, or when the computers are to be used? The purpose of a factor is how that factor relates to a policy or outcome goal, essentially, what are the computers for? What are they supposed to achieve?

Stage: it is expected that factors need to take place over time, and continuity of a factor is important. Continuity assumes that the factor or activity related to a factor is taking place frequently over a long period of time, and may appear in different ways/forms over the school career of a student.

Quality: this refers to the properties of the specific factor or activity itself.

Differentiation: this is the extent to which activities associated with a factor are implemented for all subjects involved with it. In other words, the adaptation of a factor to a subject or specific need is likely to increase the successful implementation of a factor and therefore maximizes its effect on student learning outcomes.

Scheerens (2013) very succinctly summarizes four of the five dimensions of the dynamic model as, "frequency stands for the quantitative intensity of a factor, stage refers to the duration of a factor being active, quality looks like construct validity (the properties of a construct defined in the literature), and differentiation is about the adaptive implementation of a factor" (p.7).

A distinctive feature of the dynamic model, different from all previous theoretical educational effectiveness models, is that via these five dimensions it attempts to both identify effectiveness factors and seeks to explain why these factors are important (Creemers & Kyriakides, 2010c). There are five major assumptions that this model makes (Creemers & Kyriakides, 2010c). First, the model assumes that effective education is a dynamic process, and the dynamic model could be used as a tool to identify weaknesses and further develop policy. The second assumption is that factors at the school and national/context level can have both direct and indirect effects on student achievement, teaching, and learning. The third assumption is that the impact of these school and national/context level factors has to be defined and measured differently than classroom factors. The fourth assumption is that the relationships between effectiveness factors may not be linear. And finally, the fifth assumption of the dynamic model is that each factor can be measured using the five dimensions of the dynamic model: frequency, focus, stage, quality, and differentiation.

The dynamic model, although it can be considered a relatively new educational effectiveness theoretical model, has undergone some empirical testing. The theoretical properties of the model, like consistency, cohesion, constancy, and control have shown some promising signs (Creemers & Kyriakides, 2008; Scheerens, 2013). Additionally, the model has been shown to be valid when used to formulate interventions, and can be usefully applied in the school improvement field (Kyriakides et al., 2014; Kyriakides & Creemers, 2012). Although it is recognized by the developers of the dynamic model that the classroom level is the most important level because it has the most direct impact on student outcomes, the dynamic model could be further developed by identifying effectiveness factors that are influenced by the wider policy context – the national level in the case of Brazil (Creemers & Kyriakides, 2006, 2015). Creemers & Kyriakides (2006) argue that the five dimensions of the model can be applied to the national context level and the results of such a study offer great potential to the development of the dynamic model, and to the field of educational effectiveness research.

2.4.3 *Mixed Methods Research in Educational Effectiveness Studies*

A pragmatic approach, based on the works of Pierce, James, and Dewey, offers a reasoned approach to educational effectiveness research that rejects the paradigm incompatibility thesis and argues that there is space for methodological pluralism based on the middle ground provided by basic agreements about truth and knowledge (R. B. Johnson & Onwuegbuzie, 2004; Morgan, 2007). Pragmatists assert that antagonisms between the opposing paradigmatic camps are unproductive and fail to acknowledge the complexity and value of each approach (Furlong, 2004; R. B. Johnson & Onwuegbuzie, 2004). Further, pragmatism recognizes that many research questions cross paradigmatic boundaries (Jang et al., 2008) and suggests that researchers consider why and when they use a particular methodological approach through a careful and critical reflection, wherein they weigh, consider, and apply the approach that most appropriately and completely answers their questions (R. B. Johnson & Onwuegbuzie, 2004; Teddlie & Tashakkori, 2003). A pragmatic approach clears the ground for a mixed methods methodology which, hinged on the processes of abduction, inter-subjectivity, and transferability, is a complex and dynamic research process whose strengths lie in its ability to address the interactive and intricate processes involved in studying social phenomenon, and lays the ground to answer new questions in new ways.

Proponents of Mixed Methods Research (MMR) suggest that the major advantage of its use is that it is likely to provide complementary strengths and non-overlapping or compensatory weaknesses, and can answer a more diverse set of questions whilst providing more complete and comprehensive knowledge (Creswell et al., 2003; R. B. Johnson & Onwuegbuzie, 2004). Teddlie and Sammons (2010) and Punch (2005) assert that quantitative inquiry facilitates an understanding of the scope and the patterns of the phenomenon, while qualitative inquiry gives the researcher a more detailed and empathetic understanding of the phenomenon. Teddlie and Sammons (2010) go on to state, "[i]t is the generation of new knowledge that goes beyond the sum of the QUAL and QUAN components that makes MMR so valuable in understanding social phenomena, such as educational effectiveness" (p.116). Further, mixed methods researchers argue that complex real world contexts demand research that takes multiple perspectives and experiences into account. The pluralistic methods offered by a mixed methods methodology is most likely to yield the most valuable information that best acknowledges that some phenomena are contextual and others have much wider applications and ramifications (Siraj-Blatchford et al., 2006).

The mixed methods research design suggested for this study is a sequential integrated design which relies on a synergetic relationship between quantitative and qualitative approaches. Many authors argue that this synthesis of methods reveals the research reality; that you can qualify quantitative data and quantify qualitative data and (Crotty, 1998; Day et al., 2008; Jang et al., 2008; Siraj-Blatchford et al., 2006). It is widely argued that this interactive and integrated process of data collection, analysis, and interpretation facilitates the presentation and consideration of a greater range of data, resulting in more holistic, nuanced, and valid accounts of complex phenomenon (Day et al., 2008; Jang et al., 2008; Teddlie & Tashakkori, 2003). Cohen, Manion, and Morrison (2011) and DeVaus (2001) further argues that mixed methods is a powerful way to demonstrate concurrent and content validity; that the strengths of both the qualitative and the quantitative inquiry combine to address major issues surrounding both internal and external validity.

This study seeks to address concerns that traditional effectiveness studies that rely solely on quantitative data collection and analysis are limited in their abilities to capture education as a

complex and interactive process (Creemers & Kyriakides, 2006; Day et al., 2008). It adopts the position that the integration of qualitative inquiry into educational effectiveness research can help fill this void to promote a deeper understanding of effective school practices (D. Reynolds, 1992). A mixed methods approach, therefore, was deemed most appropriate for this investigation in Paraiba, Brazil as it appeared most likely to advance the field and enrich the knowledge base. Avoiding the use of a single measure or method in the judgement of effectiveness, a mixed methods approach has the potential to reveal a more holistic and nuanced perspective of education in Paraiba.

A potential critique of the philosophical and theoretical framework of this study is the use of non-Brazilian models. It could be argued that Brazilian philosopher, Paolo Freire, may be able to provide a more culturally appropriate model from which to pursue this research. While Freire's (2011) most notable work, *Pedagogy of the Oppressed*, would benefit this study as a powerful problematization of the use of Prova Brasil as a measure of the benefits of increased funding to education and on student learning, Freire's focus on empowerment and freedom via *praxis* (informed action) is not the lens of the current study. Further, Brazil's early outward connection during the Cardoso government to the OECD, participation in and use of international assessments such as PISA, the alignment of Brazil's national assessment systems, including Prova Brasil, with PISA, historical support from international agencies such as the World Bank, and the incorporation of PISA goals into the national education plan are indications that Brazil is adopting an international approach to educational policy development and evaluation. It is in this context and under these conditions, that the current framework was chosen and developed.

2.5 *Conceptual Models*

The figures below present the conceptual models for the study. The first is a general conceptual model of the dynamic model (Figure 2.1). The second model is a model derived from the dynamic model to suit the research aims and questions of this specific study (Figure 2.2).

2.5.1 *General Conceptual Models for a Dynamic Approach to an Educational Effectiveness Study*

Figure 2.1 presents a general conceptual model designed to outline the context of the study in terms of the dynamic model. The figure illustrates the general relationships between the national context, the factors of progression at the school, classroom, and student levels, and potential educational outcome measures.

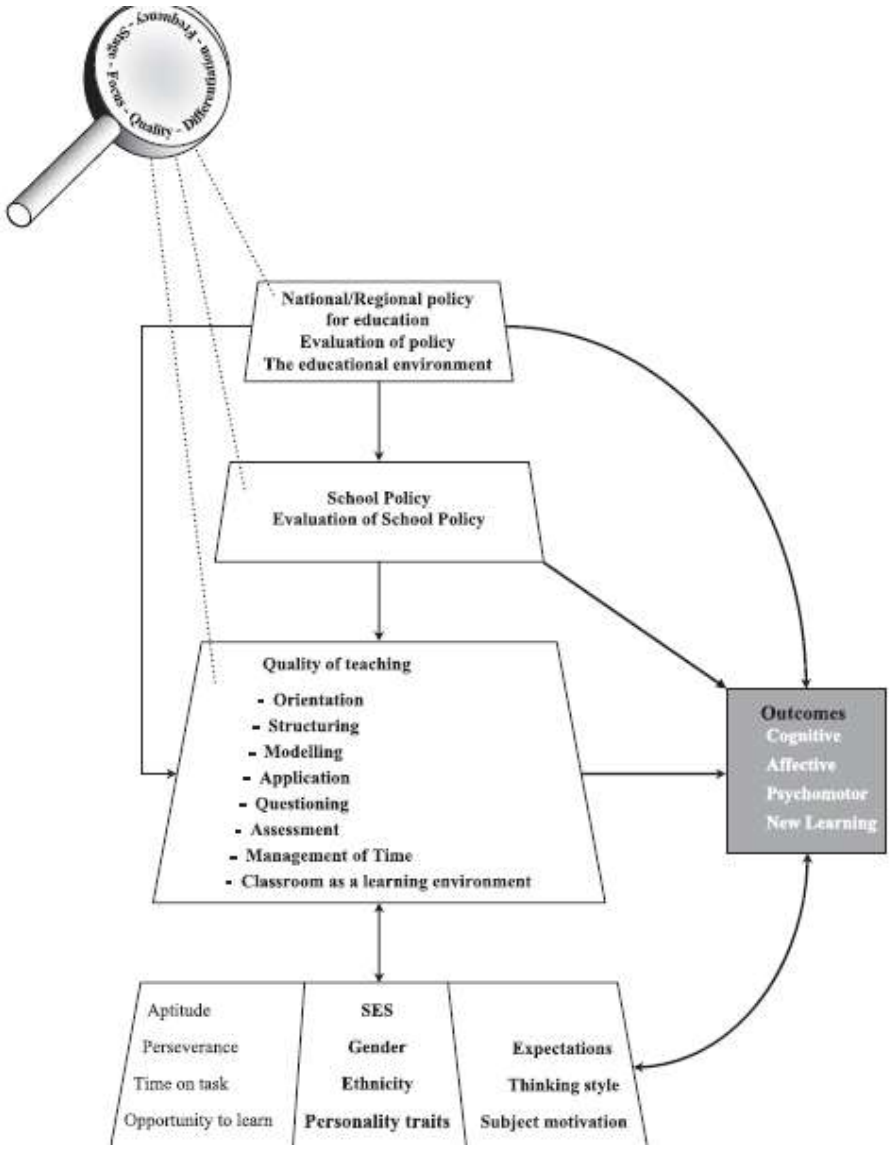


Figure 2.1: General Conceptual Model of the Dynamic Model

(Source Creemers & Kyriakides, 2010c)

Figure 2.2 (Teddlie & Reynolds, 2000) displays the general conceptual for this educational effectiveness study. This model is common to studies in the educational effectiveness research tradition where the resources of schools are considered in an input-output relationship with contextual variables (usually student socio-economic background characteristics) used as "control" variables (Teddlie & Reynolds, 2000), however in this model the processes are determined by the theoretical model used in this study – the dynamic model.

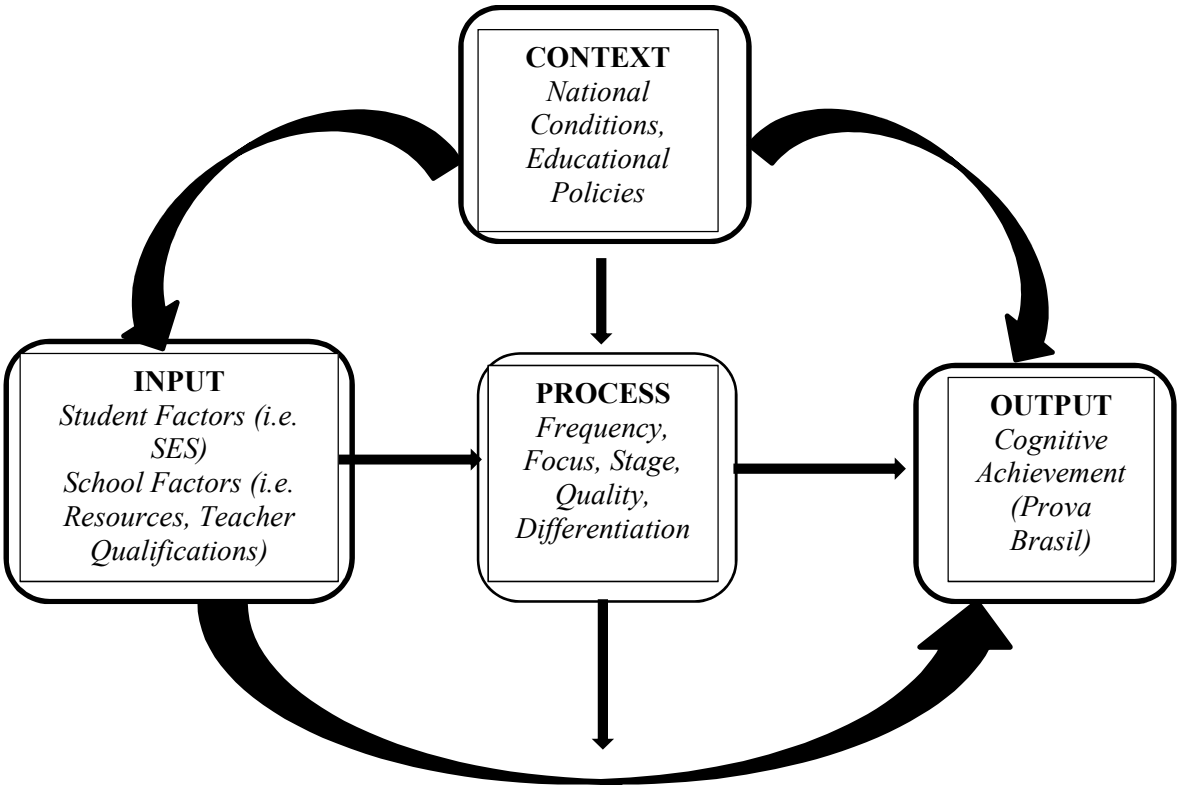


Figure 2.2: General Conceptual Model for the Current Study
(Source: Teddlie & Reynolds, 2000)

2.6 From Theory to Practice

The following models display the scope and sequence of each phase of this study and are designed to illustrate the transition from theory and concept to practical application and realization of the project.

2.6.1 *Model of a Sequential Integrated Mixed-Methods Study*

Figure 2.3 displays the conceptual model for an iterative sequential mixed methods research design (Creswell et al., 2003). The implementation of the design will have the qualitative investigation follow the quantitative investigation, and the integration will occur at the development of research questions, the development of the qualitative instruments, the finalization of the qualitative models, and at the interpretation. Neither research method will be prioritized over the other; instead, conclusions will be drawn by taking into account the findings at each phase of the research.

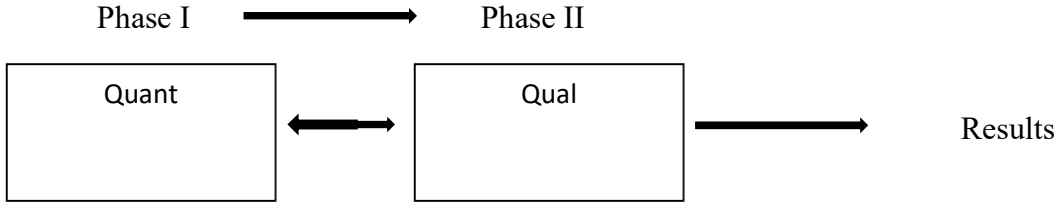


Figure 2.3: General Practical Model for a Sequential Integrated Mixed-Methods Study
(Source: Creswell et al., 2003)

2.6.2 *Phase I - Practical Model of Educational Resources Predicting Educational Outcomes*

Figure 2.4 displays the practical model for the resource and teacher qualification variables (inputs) considered in Phase I of this study including the student background characteristics considered "control" variables, the district identification number, and the educational achievement variable used as the "outcome" variable.

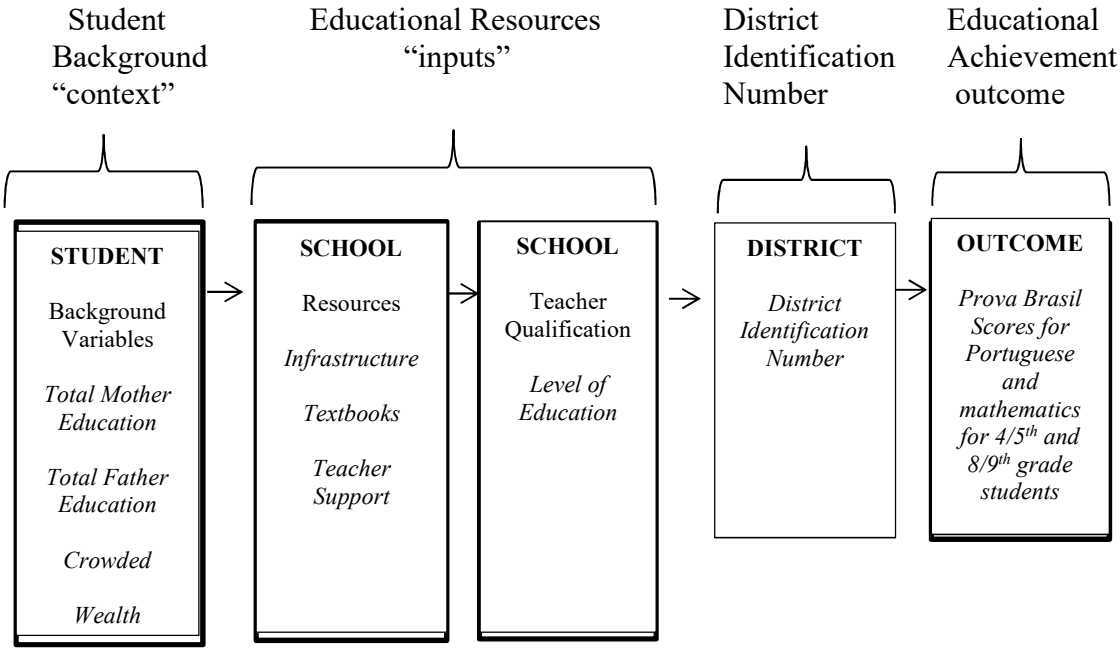


Figure 2.4: Phase I - Practical Model of Educational Resources Predicting Educational Outcomes

2.6.3 *Phase II - Practical Model of the Semi-Structured Interview Schedule*

Figure 2.5 outlines the scope and sequence of the interviews to be conducted in Phase II of the research study.

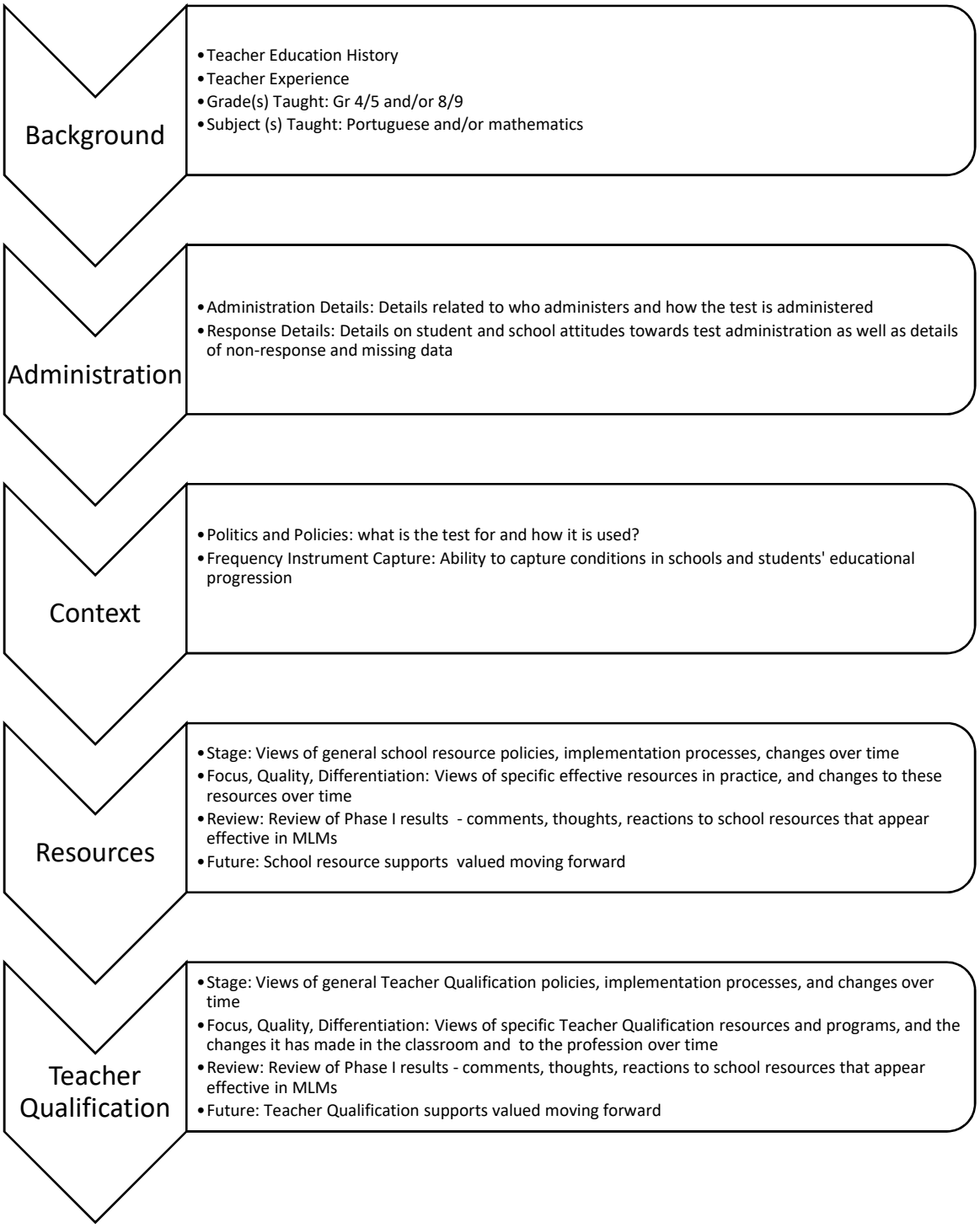


Figure 2.5: Phase II - Practical Model of the Semi-Structured Interview Schedule

2.3 Chapter Summary

The purpose of this chapter was to articulate the philosophical, theoretical, and methodological framework of this study, culminating in the conceptual and practical models illustrating the scope and sequence of the research. The chapter begins with a review of pragmatism as defined by the works of Peirce (1878) , James (1906a, 1906b), and Dewey (1910). These core tenets of pragmatism were then applied to education research using the work of MacIntyre (1984), Pring (2000), and Stenhouse (1975). Difficulties in the theoretical development of educational effectiveness research, including its origin as two separate areas of research – school effectiveness and school improvement – is then discussed. The most recent, and a promising development in theory of educational effectiveness research, is the dynamic approach to school improvement, the DASI model. The DASI model links logically to the deeper philosophical framework of pragmatism, is an appropriate theoretical model in the area of educational effectiveness research, and supports the use of a mixed methods methodology. As such a clear links from the philosophical (pragmatism) origins, to the theoretical (DASI) model, to the methodology (mixed methods) of this study are made. The DASI model uses five key dimensions to structure investigations into educational effectiveness, they are *frequency*, *focus*, *stage*, *quality*, and *differentiation*. These five dimensions support an investigation not just of what is effective, but why a resource might be effective, and in what ways it might be effective. A potential critique of this philosophical and theoretical approach is the use of an international model in a Brazilian context. Paolo Freire (2011), in particular, would offer some advantages to the development of this study. It is argued, however, that given the international focus and assessment of Brazilian educational policies, that the use of an international philosophical and theoretical framework is not unwarranted. The chapter concludes with the general DASI conceptual model, and a conceptual model of this DASI study. This conceptual model is then applied to the research design of this study, and a practical model of the sequential integrated mixed methods of the approach to this study is outlined. It is noted that the mixing will occur in the development of research questions, the development of the qualitative interview survey instrument, the finalization of the quantitative multilevel models, and during the interpretation and discussion of results. The practical models of the multilevel models of Phase I and the interview schedule of Phase II are then illustrated.

Chapter 3: Research Design and Methodology

The previous chapter articulated the philosophical groundings of the study in pragmatism and further outlined the connections between pragmatism and the theoretical lens of the study, the dynamic approach to school improvement (DASI) model. Further, the chapter outlined how these philosophical and theoretical frameworks led to the conceptual development of the scope and sequence of the study. Chapter 3 focuses on the connections between the DASI model, the mixed methods methodology, the research methods, and how the research questions of this study are addressed by this structure. The chapter is divided into the two Phases of the study. For Phase I, section 3.1 outlines the quantitative (*frequency*) research strategy of the study and provides an overview of the Prova Brasil survey and context. 3.2 describes the sampling strategy used by the Instituto Nacional de Estudos e Pesquisas Educacionais (INEP) – the assessment branch of the Ministry of Education of Brazil who are responsible for the administration of Prova Brasil. The following section, section 3.3 details the instruments, measures, and study variables applied in the pursuit of the research questions of this study. This section further connects these measures with the applicable theoretical and empirical literature in order to examine the validity and reliability of measures used in the study. Section 3.4 details the treatment of missing data, and the final section of Phase I, section 3.5, describes the statistical analytical strategy used in this study and articulates how it addresses the research questions. Sections 3.6 and 3.7 address the qualitative research design of Phase II, including the interview sample and interview instrument used in this study. Section 3.8 outlines the analytical strategy used in Phase II of the study. Section 3.9 is focused on the points of intersection between Phase I and Phase II in order to articulate how the methods mixed in this study. Finally, section 3.10 outlines the ethical considerations of this study.

PHASE I

A pragmatic (Dewey, 1910; James, 1906b; Peirce, 1878) approach to educational research encourages the researcher to apply theoretical and methodological approaches that are likely to produce findings that can be combined to elicit satisfactory and warranted meanings that address the researcher's questions. The DASI model provides an appropriate theoretical and organizational structure to observe and record the dynamic ways in which educational resources

may be impacting schools and students' educational outcomes by analyzing the *frequency*, *focus*, *stage*, *quality*, and *differentiation* of the resource(s) in practice.

3.1 *Research Design and Methodology of Phase I*

Phase I of this study is concerned with the *frequency* of educational resources and teacher qualification variables and their possible effects on students' educational outcomes. This phase of the study aims to address the research questions:

1) What are the relationships between the *frequency* (DASI) of school resource variables and students' attainment on the Prova Brasil assessment?
    a) Are there specific school resource variables that are significantly related to student attainment on the Prova Brasil assessment?
2) What are the relationships between the *frequency* (DASI) of teacher qualification variables and students' attainment on the Prova Brasil assessment?
    a) Are there specific teacher qualification variables that are significantly related to student attainment on the Prova Brasil assessment?

Phase I of this study employs a secondary data analysis of the cross-sectional Prova Brasil data sets in the years 2007, 2009, 2011, and 2013 to examine this *frequency* of resources and their associations with students' educational outcomes and how these may have changed over the eight year period of 2007 to 2013. The Prova Brasil surveys and tests were developed by the Instituto Nacional de Estudos e Pesquisas Educacionais (INEP) which is the assessment branch of the federal Ministry of Education of Brazil. Prova Brasil uses a census-based sampling strategy and all public schools in Brazil with more than 20 students in a class must complete the test. The tests are administered as students begin middle school (grade 4/5)[3] and as they leave middle school (grade 8/9). One survey is administered to students to collect socio-economic background characteristics, and a second survey is administered to teachers and collects socio-

[3] Note: In 2007 in Brazil middle school began in grade 4 and ended in grade 8. In 2008, however, Brazil passed new legislation that increased the number of years of mandatory schooling for Brazilian children and lowered the age of entry by one year. As a result, since 2009, grade 5 has represented the start of middle school and grade 9 the end of middle school although the age of the children when taking the Prova Brasil test has been the same in each year of Prova Brasil.

economic background information as well as educational achievement details, pedagogical practice details, and workplace conditions and experiences. Principals complete an additional two surveys, the first is very similar to the teacher survey, and the other is designed to record the conditions of the school – infrastructure, resources, community support, violence, and both administrative and teaching staff details. The students' socio-economic surveys accompany basic Portuguese and mathematics assessments. The INEP asserts that the Portuguese test emphasizes reading comprehension skills, and the mathematics tests focus on problem solving abilities.

The educational achievement outcomes that are used in the analyses are Portuguese and mathematics performance on the Prova Brasil tests in 2007, 2009, 2011, and 2013 for grade 4/5 and grade 8/9 Paraibano students. The predictors of students' educational outcomes, including socio-economic background, educational resources, and teacher qualification variables were collected from the principal, teacher, and student surveys that accompany the Portuguese and mathematics achievement tests. SPSS version 23 is used to analyze each of these data sets in a multilevel multiple regression framework with the aim of identifying the contribution of each variable to predicting the variation in the dependant outcome variable. For both Portuguese and mathematics educational achievement outcomes in each of the four data sets for both of the grade years, groups of predictive variables are entered hierarchically in blocks; first to control for student background characteristics and prior achievement, and then for school resources and teacher qualification. These large data sets, when merged, provide a relevant and appropriate basis from which to address the aims and research questions of Phase I of this study.

3.1.1 *Secondary Data Analysis*

Secondary data analysis refers to the processes of data analysis by researchers not involved in the original development or collection of a data set and who may be using the data for analyses not envisaged by the primary data developers (Bryman, 2008; E. Smith, 2008a, 2008b). Secondary data analysis presents the researcher with considerable advantages, including efficiencies with respect to time and cost, and from which vantage point the researcher is able to focus on creative and sophisticated uses of the survey responses. Additionally, a researcher employing a secondary data analysis research strategy may be able to explore matters of interest not addressed

by the primary researchers, therefore enabling a more comprehensive use of the data available (Bryman, 2008; E. Smith, 2008a, 2008b). Accompanying these benefits of secondary data analysis are, of course, limitations that must be considered.

Of primary concern to a researcher employing a research strategy that includes secondary data analysis is that the researcher may not be aware of the theoretical basis for the development of the measure, the data collection procedure, and/or data entry and coding decisions (Bryman, 2008). This may result in a limited ability of the secondary data analyst to determine the quality of the data with reference to the reliability, validity, and the methodological rigour of the measurement instruments and data set as a whole. Another methodological concern is that details of data administration or sampling may not be available to the secondary data researchers, and these details may affect the data collected, their meaning, and their context. In addition, although secondary data sets can present the opportunity to explore new and creative lines of inquiry, the data set may not contain all of the relevant variables required for a secondary data analysts' study (Bryman, 2008). In cases where the secondary data set contains missing values, as they often do, contextual clues about the total nonresponse and item nonresponse may be absent. This could lead to sample bias unbeknownst to the secondary data analyst. Finally, large scale data sets, like the ones used in this study, can be complex and require significant amounts of time to import, clean, code, merge, and identify the variables of interest.

The Prova Brasil data set offers secondary data analysts some advantages. Specifically, there has been significant development of the survey and subject based assessments over time by both Brazilian and independent researchers interested in both theoretical and empirical validity (INEP, 2011b). In addition, the INEP has made some effort to link the Prova Brasil test to the International PISA tests in order to benefit from the international dialogue of the validity of those measures (see Conde, 2008 and Lopes-Rossi, 2012 for example).

3.1.2 *Cross-Sectional Data*

It is well recognized that longitudinal data sets – data sets that use repeated test measures on the same sample over time – are preferable to cross-sectional data sets especially in the context of education and educational progress over time (Teddlie & Reynolds, 2000). Cross-sectional data

provides "snap shots" that can be theoretically and methodologically difficult to stitch together, and cannot provide researchers with great clarity regarding processes over time as is the case with longitudinal data sets. The cross-sectional nature of the Prova Brasil data sets used in this study is limited in its ability to present generalizations and/or illustrate change over time and therefore conclusions must be drawn carefully and with an acknowledgement of the data's limitations. Nonetheless, due to the sampling strategy, it is possible to examine change between cohorts over the eight year time span using the biennial surveys in 2007, 2009, 2011, and 2013.

3.1.3 *Objectives and Design of Prova Brasil*

In 1985 the Ministry of Education in Brazil took the first steps in planning and designing an educational assessment system that would be able to contribute to an understanding of how to evaluate and improve school quality, and monitor fair and equitable access to education (Instituto Nacional de Estudos e Pesquisas Educacionais Anisio Teixeira (INEP), 2011a). The assessment would be designed to provide an overview of educational progress in Brazil, and to help support the INEP in providing schools with evidence-based feedback that could be used to guide decisions at the school and district levels. The intention was not to track the educational progress of individual students and so a cross-sectional design was adopted, and the data sets have always been anonymous. The results of the subject tests (Portuguese and mathematics tests) would not be considered in the student's grade and no result would be given to the student who wrote the test.

In the early 1980s, after securing a loan from the Wold Bank, a project called EDURURAL/NE was initiated and began the development of a standardized test of Portuguese and mathematics that could then be administered to a random sample of grade 4 and grade 8 students from the north-eastern states of Pernambuco, Ceara, and Piaui (Armitage, Gomes-Neto, Harbison, Holsinger, & Helio Leite, 1986). Socio-economic surveys that collected background and contextual data on students, teachers, principals, and the school itself were also developed. In 1990, after 5 years of development and piloting through the EDURURAL investigations, the Sistema de Avaliacao da Educacao Basica (SAEB) assessment was administered across Brazil for the first time. The data from the surveys and the results of the educational outcome tests were considered and evaluated, and then in 1995 a second round of SAEB assessments were

administered with corrections, improvements, and additional measures included (Instituto Nacional de Estudos e Pesquisas Educacionais Anisio Teixeira (INEP), 2011a). The results of the 1995 SAEB tests were publicly reviewed and the data sets were also made publicly available for use researchers within Brazil and abroad (Instituto Nacional de Estudos e Pesquisas Educacionais, 2012). The SAEB test was then administered every two years until 2005. The surveys and tests remained basically the same but additional measures were added as researchers explored different avenues of inquiry. Items on both the socio-economic surveys and the educational achievement tests that were considered unreliable or not valid were removed. In 2005 a different sampling strategy was taken and again the socio-economic surveys were expanded, and this new test became known as Prova Brasil.

Prova Brasil's educational achievement measures in Portuguese and mathematics have been developed over a twenty-year period with ongoing public evaluations conducted and improvements made. These assessments are accompanied by surveys consisting only of closed questions (most often items are measured on a Likert scale) that primarily collect socio-economic data on students, teachers, and principals. In recent years the surveys have been expanded to include more items designed to measure attitudes, experiences, and perceptions. The surveys, over the four time points in this study, have changed very little. They have been lengthened, and shortened. They have had items move from one survey to another, and occasionally items have been deleted. Some new items, especially ones that focus on motivation and more personal teacher background details, have been added. The variables of interest to this study all appeared on each survey, albeit in different places (sometimes on a different survey entirely), and coded differently. Great care was taken to ensure that all questions over all time points were coded to reflect the correct ascending order in the present study. The 2007, 2009, 2011, and 2013 student, teacher, principal, and school questionnaire surveys have been included in Appendix I.

The extensive development process, extended surveys, and large sample size of the Prova Brasil data sets presents secondary data analysts with an opportunity to explore many avenues of research. Although the effect of resources on educational achievement has been explored previously in Brazil, there are currently no published papers in the English language that

specifically use the Prova Brasil data sets to explore the lines of inquiry proposed by this research.

3.2 *Prova Brasil Sampling Strategy*

In 2007 Prova Brasil was administered to every public school in Brazil with at least 20 students in grade 4 and grade 8 (INEP, 2012). In the schools that met this requirement, **all** students completed the assessments. This is considered to be a census based sampling strategy, and it was used in all years for which data is currently available (2007, 2009, 2011, 2013). The only Brazilian students who do not complete the exam are: a) students who are not in attendance at school on the day of the test, b) are students of schools who have refused to take the Prova Brasil test, c) are children of parents who refuse to have their child take the test, d) are students in school with less than 20 students in either grade 4/5 or grade 8/9, or e) are students enrolled in private schools. Students with special learning needs do participate in Prova Brasil testing (INEP, 2011b). Paraiba, the Brazilian state examined in this research, was subject to this census based sampling strategy. The tests and surveys are administered to students at the end of grade 4/5, as students enter middle school, and at the end of grade 8/9, just as students leave middle school. Students who completed the test in grade 4 in 2007 would not have completed the test a second time as in 2009 the Brazilian policy changes regarding school entry age would have come into effect. This means that in 2011 when the test was administered again, they would only have been in grade 8 and the test was administered to grade 9s. In the future, students who write the test in grade five will also write the test again four years later, in grade 9. Although this means that the Brazilian Ministry of Education could track the progress of students over time, students are not assigned unique identifiers and therefore data sets are not longitudinal – they are cross-sectional - for the foreseeable future. The data is therefore completely anonymous at the student level and designed to provide some general feedback on educational achievement and progress at the school, district, state, and national levels. While students are administered their Portuguese and mathematics assessments and background surveys, teachers complete their background survey, and principals complete two surveys; one about their background and one about the school. Although Prova Brasil was administered in 2005, the results of that year are not publicly available. The results for 2007, 2009, 2011, and 2013, however, are currently publicly available.

This study used the 2007, 2009, 2011, and 2013 Prova Brasil data sets for the state of Paraiba. In the 2007 there is data available for 69,651 students (38,087 in grade 4 and 31,474 in grade 8), in 2009 there is data available for 106,984 students (49,496 in grade 5 and 57,488 in grade 9), in 2011 there is data available for 88,042 students (43,532 in grade 5 and 44,510 in grade 9), and in 2013 there is data available for 93,946 students (46,361 in grade 5 and 47,585 in grade 9). Between 2007 and 2013, Paraiba's published enrolment rate for students in this age group remained relatively stable at 93-95% and the population of Paraiba has seen stable, normal growth (IDEB, 2017; INEP, 2012). The reason for the considerable variation in the number of students present in the data sets over the four sample years available is unclear and should be considered a limitation that may affect the findings and conclusions of Phase I of this research.

3.2.1 *Limitations of the Prova Brasil Sampling Strategy*

Although initially the sample appears to be comprehensive and census-based, the amount of variation in number of cases over the four years for which data is available is worrisome, especially as the reasons for it are not addressed in any current Ministry of Education publication available to the researcher. Further, Harbison and Hanushek (1992) noted that the weakest educational contexts tended to be in schools with very small student populations and that these were primarily located in rural areas. The Prova Brasil sampling strategy, which requires at least 20 students in either grade 4/5 or grade 8/9, therefore does not administer the test to smaller schools. Thus, the sample is likely to be biased towards representing urban populations over rural ones, and may be under-representing educational contexts with small student populations that are likely to have poor educational conditions.

3.3 ***The Prova Brasil Data***

In 2007, 2009, 2011, and 2013 the Prova Brasil tests of Portuguese and mathematics were administered to students finishing grade 4/5 and grade 8/9 in schools with more than 20 students per grade. The academic achievement tests were accompanied by socio-economic background surveys for the students, teachers, and principals. The principals of the schools were additionally required to complete a survey detailing the physical and contextual conditions of the school. The surveys consisted of closed questions, usually formatted using a Likert scale, that aimed to represent the social and economic conditions of students, teachers, principals, and schools. The

surveys also collected information on experiences, perceptions, and attitudes using Likert scale type questions.

3.3.1 *The Instruments Used in the Current Study*

Table 3.1 illustrates how the current study proposes to utilize the Prova Brasil tests and surveys to construct the measures used in the analyses. The current study uses information from all four socio-economic surveys (students, teachers, principal, school) and uses both Portuguese and mathematics results at grade 4/5 and grade 8/9 as educational achievement indicators. Student background characteristics are taken from the student socio-economic surveys and the educational achievement results are linked to these variables at the student level by student identification number. School resource variables are obtained from the principal's background survey (2007 and 2009 only), the school survey, and the teacher's survey, and merged into the data set at the school level on the basis of the school identification number. The teacher qualification variables are taken from the teacher's background survey. As there was often more than one teacher who completed the survey per school, the results from the teacher survey are averaged and aggregated to the school identification number and then merged into the data set on this basis. It is acknowledged that specificity and accuracy are lost in this aggregation process whereby only averages are taken of the teacher values instead of individual values linked to individual students. Unfortunately, at present, Prova Brasil does not have a mechanism to link teachers to students in the data sets and therefore an aggregated approach was taken. The school identification number is based on the Brazilian national demographic census number and therefore each school is permanently assigned this identification number. Accordingly, the school number does not vary over the four time points and this allows school data to be tracked.

Table 3.1: Use of Prova Brasil Surveys to Construct Measures Used in Current Study

Prova Brasil Survey:	2007	2009	2011	2013
Student	Socio-economic background context	Socio-economic background context	Socio-economic background context	Socio-economic background context
Teacher	School Resources & Teacher Qualification	School Resources & Teacher Qualification	School Resources & Teacher Qualification	School Resources & Teacher Qualification
Principal	School Resources	School Resources	n/a	n/a
School	School Resources	School Resources	School Resources	School Resources
Portuguese	Grade 4/5 & 8/9 achievement in Portuguese	Grade 4/5 & 8/9 achievement in Portuguese	Grade 4/5 & 8/9 achievement in Portuguese	Grade 4/5 & 8/9 achievement in Portuguese
Mathematics	Grade 4/5 & 8/9 achievement in mathematics	Grade 4/5 & 8/9 achievement in mathematics	Grade 4/5 & 8/9 achievement in mathematics	Grade 4/5 & 8/9 achievement in mathematics

The Prova Brasil subject assessments and background surveys have been developed over twenty years by both Brazilian and international researchers beginning in 1985 with the SAEB assessment developed by the EDURURAL project (INEP, 2011a, 2012). The development process has been iterative, is on-going, and has included extensive piloting and review of the instruments using a variety of methods (INEP, 2011a, 2012). According to the INEP, the reliability of the measures is assessed using Item Response Theory and test item anchors are included in the tests in each of the years in an effort to establish the consistency and stability of results over time and thus support the comparability of the data over the time points (INEP, 2011b). Unfortunately, the Brazilian Ministry of Education does not cite or provide the academic articles related to the test item development and refinement. Articles on this subject are not available in the English language databases accessed by the researcher. The INEP works closely with both Brazilian and international scholars to establish comparability between Prova Brasil and PISA in an effort to improve validity (as above, see Conde, 2008; Lopes-Rossi, 2012 for example). The likely result of these measures is carefully constructed measurement items

that have been refined over an extended period of time. There are a total of 21 Prova Brasil exam books that are considered reliable, valid, and conducive to producing educational achievement data that is consistent and stable over the Prova Brasil administrative years. These 21 booklets are randomly distributed to the students in each grade in each school (INEP, 2011b).

The INEP hires test administrators; the assessments are not administered by classroom teachers. These administrators distribute and collect the Portuguese and mathematics tests and oversee the completion of the student socio-economic surveys. The tests and the surveys are completed on a voluntary basis and the exams are therefore primarily self-administered. Teachers self-administer the teacher socio-economic survey and principals self-administer the principal's socio-economic survey. Additionally, the principal completes the school survey that pertains primarily to infrastructure and safety concerns. The primary drawback of this self-administration approach is that students, teachers, and principals do not always complete the survey, or may only complete parts of the survey (Robson, 2002). This has the potential to result in large amounts of missing data, and this topic is addressed in a subsequent chapter section. One of the benefits of a self-administered survey is that the privacy and anonymity of the respondents can be more easily maintained and this may be conducive to obtaining information on more sensitive topics (L. Cohen et al., 2011; Robson, 2002). The primary benefits of closed question survey data is the ability to collect data that allows for systematic comparisons and to observe detailed patterns of correlation (DeVaus, 2002; Robson, 2002). The primary drawback of this method of data collection is that it is difficult to collect rich, detailed, insightful, and personal responses more closely associated with qualitative methods of data collection (Bryman, 2008). Phase II of this research study aims to address this deficit.

3.3.2 *Measures of Educational Outcomes*

Two measures of subject based skills were used in this study to estimate educational achievement. Prova Brasil measures Portuguese language ability using a series of multiple choice questions focused on assessing the ability to read and understand what has been read. Prova Brasil also measures mathematics ability using a series of multiple choice questions focused on assessing the ability to problem solve. The Portuguese and mathematics measures

are designed to measure general achievement by subject and are not curriculum based. The assessments are designed to be comparable to the international PISA test (Bruns et al., 2012).

Both Portuguese and mathematics assessments are administered at the grade 4/5 and the grade 8/9 level and they are both administered every year of testing (i.e. 2007, 2009, 2011, 2013). There are 21 test booklets that have been created containing both Portuguese and mathematics tests for grade 4/5 and another 21 test booklets for grade 8/9. Students of each grade are randomly given one of the 21 test booklets to complete. The test booklets have remained basically the same over all four time points as most problematic questions were removed over the SAEB assessment development time frame. The questions have been developed over this time by both Brazilian and international academics with the aim of creating a test that is comparable to the general (not curriculum based) international PISA test but that also remains valid in the Brazilian educational context (Bruns et al., 2012). There are 22 multiple choice questions on the Portuguese portion of the test and another 22 multiple choice questions on the mathematics portion of the test for students in grade 4/5 (a total of 44 questions in the exam booklet). There are 26 multiple choice questions on the Portuguese portion of the test and another 26 multiple choice questions on the mathematics portion of the test for students in grade 8/9 (a total of 52 questions in the exam booklet). Each question has either four or five multiple choice answer options but only one correct choice. Students have two and a half hours to complete the entire exam booklet.

The grade 4/5 assessment of Portuguese is designed to assess reading comprehension and vocabulary. Typically, students are given questions with one or multiple texts of varying length and structure, including cartoons, poems, dialogue, stories, and every day items such as tickets. Students are asked to identify characters, themes, ideas, and words from these texts and choose one of the multiple response options given that best answers the question asked. The grade 8/9 test of Portuguese is also primarily concerned with the assessment of reading comprehension and vocabulary, but the length and complexity of the texts are increased and the questions demand an increased depth of understanding. Examples of the grade 4/5 and grade 8/9 Portuguese exam questions are included in Appendix II.

The results of the Portuguese test have been transformed onto a scale of 0 to 400 by the INEP. The Portuguese scale was developed in 1997 for the SAEB test and is used to display and facilitate the analysis and comparison of the SAEB and the Prova Brasil test results between grades and over test administration times. Table 3.2 describes the how the transformed scores of the Portuguese Prova Brasil test are related to skills assessed by the tests. The table is available in Portuguese on the INEP website but has been translated and included by the researcher for the purposes of this study. These tables were first included in the researcher's Master of Science thesis at the University of Oxford attained in August 2013 (Paget, 2013). The scale has not changed at the time of this writing and therefore the same tables, unaltered, will be included in this thesis. Descriptive statistics for grade 4/5 and grade 8/9 Portuguese Prova Brasil results for Paraibano students in 2007, 2009, 2011, and 2013 are included in Appendix III.

Table 3.2: Score to Skill Scale for Prova Brasil's Portuguese Test
*Note Table has been translated from Portuguese to English by the researcher for the purposes of this study. After the researcher's translation, the table was back-translated via Goggle Translate in order to ensure a level of validity in the translation. The original scale can be found at: http://download.inep.gov.br/educacao_basica/prova_brasil_saeb/escala/2011/escala_desempenho_portugues_fundamental.pdf

TRANSFORMED PORTUGUESE SCORE	SKILL LEVEL *each level builds on the one before and the requires additional skills *the table indicates where grade 4/5 and grade 8/9 skills deviate in a level.
Level 0 **0-125**	-Locate basic information in a text. -Identify the effect of meaning arising from the use of graphics -Identify the theme in a short and simple text.
Level 1 **125-150**	-Locate explicit information in short narrative texts, bulletins and advertisements. -Identify the topic of a text. -Locate elements of a text such as the main character. -Establish relationships between parts of the text: character and action, action and time.
Level 2 **150-175**	-Locate explicit information in more complex texts (i.e. identifying, among many characters, the main character) -Identify the topic of a text. -Infer information in verbal text (character traits) and nonverbal (comic strip). -Interpret small newspaper articles, excerpts from encyclopaedias, long poems and poetic prose. -Identify the conflict generator and purpose of the text.
Level 3 **175-200**	-Interpret, from inference, nonverbal text (i.e. comic strip) of greater thematic complexity. -Identify the theme from features that deal with the feelings of the main character. -Recognize elements that make up a narrative and thematic vocabulary.

Level 4 **200-225**	-Identify, among the elements of the narrative, text that contains the direct speech of the narrator or observer. -Selects between explicit and implicit information corresponding to a character. -Locate information in complex text structure and vocabulary. -Infer information that creates the effect of humor in the text. -Interpret verbal text, whose meaning is built with support from images. -Identify the meaning of an expression in informational text. -Infer the meaning of a metaphorical expression and/or poetic device. -Interpret a comic strip and identify an outcome of the conflict or story. -Establish relationships between parts of a text, identifying linguistic devices that contribute to the cohesion of a text.
Level 5 **225-250**	-Identify meanings resulting from the use of punctuation -Infer the purpose of the text. -Distinguish a fact from opinion. -Distinguish the metaphorical sense of the literal expression. -Recognize effects of irony or humor in various texts. -Interpret text with supporting graphic material. **Grade 8/9 Students Additionally Should:** -Infer the meaning of a word or expression. -Establish a cause / effect relationship between parts and elements of the text. -Identify the theme of complex narrative texts, argumentative texts and poetic prose. -Identify the thesis and arguments advocated for in argumentative texts. -Recognize the effect of an author's choice of a particular word or phrase.
Level 6 **250-275**	-Locate character features in the poetic text. -Distinguish a fact from opinion. -Identify an expository essay. -Establish a cause/effect relationship between parts and elements of a text. -Infer the purpose of the text from the support provided. -Infer the meaning of a word or expression. -Identify the purpose of a text. -Identify the subject in a poem. -Comparing text that deal with the same theme, recognizing different forms of processing information. -Interpret text from diverse graphic material (graphs, tables, etc.). -Establish relationships between parts of a text, identifying literary devices that contribute to the cohesion of the text. **Grade 8/9 Students Additionally Should:** -Establish relationships between parts of a text, recognizing expressions that contribute to the continuity of the text. -Recognize the effects of meaning resulting from the use of poetic devices. -Identify the conflict generator and plot elements that build narrative. -Identify the thesis and argument defended text with informal language. -Infer information from a long trial in narrative texts. -Infer effects of irony or humor in short narratives. -Infer the meaning of an expression in complex narrative text and vocabulary.
Level 7 **275-300**	-Infer information throughout a complex narrative text. **Grade 8/9 Students Additionally Should:** -Infer implicit information in subjective poetic texts, argumentative texts with ironic intent, or other complex prose. -Recognize the effect resulting from the use of a particular expression.

	-Establish a cause/effect relationship between parts and elements of a text. -Recognize distinct positions between two or more views on the same fact or theme. -Compare texts that deal with the same theme, recognizing different forms of processing information.
Level 8 **300-325**	-Identify the subject of the text in long narratives with complex vocabulary. -Infer information from a fable. **Grade 8/9 Students Additionally Should:** -Infer the theme of poetic text. -Infer the purpose of informational text. -Identify the author's opinion in informational text with complex vocabulary. -Differentiate the main parts of a secondary of a text. -Interpret a table and compare/contrast the information. -Infer the feelings of the character in comics. -Establish relationships between the thesis and arguments offered to support it. -Identify the thesis of an argumentative text. -Identify the conflict of the plot generator. -Recognize the meaning resulting from the use of punctuation and other notations.
Level 9 **325-400**	In addition to the skills outlined above, students located at this level demonstrate reading skills involving global understanding of the text, evaluation and establishment of relations between texts, and parts of longer texts with complex vocabulary, and can infer information in different contexts, and begin to read classic literary texts with understanding.

The grade 4/5 test of mathematics is designed to assess mathematical and logical problem solving skills. Questions typically require the student to solve a problem using basic comprehension of time and space measurement, simple mental math (i.e. addition and subtraction), shapes, and the decimal system and then select the correct answer from multiple (usually four or five) options. The grade 8/9 test of mathematics is also primarily concerned with the assessment of problem solving but the complexity of the problems is increased and more advanced mathematical knowledge (i.e. integers, fractions, geometry, algebra, multiplication, division) is required. Examples of the grade 4/5 and grade 8/9 mathematics test questions are included in Appendix IV.

Unlike the results of the Prova Brasil Portuguese tests, the results of the mathematics tests have been transformed onto a scale of 0 to 500 by the INEP. The scale was developed in 1997 for the SAEB test and is used to facilitate the analysis and comparison of both the SAEB and the Prova Brasil test results between grades and over test administration times. Table 3.3 below describes the how the transformed scores of the Portuguese Prova Brasil test are related to skills assessed

by the tests. As was the case with the Portuguese test scale, the mathematics table is available in Portuguese on the INEP website but has been translated and included here by the researcher for the purposes of this study. Also as was the case with the Portuguese scale, these tables were first included in the researcher's Master of Science thesis at the University of Oxford attained in August 2013 (Paget, 2013). As the scale has not changed at the time of this writing, the same tables, unaltered, will be included in this thesis. Descriptive statistics for grade 4/5 and grade 8/9 mathematics Prova Brasil results for Paraibano students in 2007, 2009, 2011, and 2013 are included in Appendix V.

Table 3.3: Score to Skill Scale for Prova Brasil's Mathematics Test
*Note Table has been translated from Portuguese to English by the researcher for the purposes of this study. After the researcher's translation, the table was back-translated via Goggle Translate in order to ensure a level of validity in the translation. The original scale can be found at: http://download.inep.gov.br/educacao_basica/prova_brasil_saeb/escala/2011/escala_desempenho_matematica_fundamental.pdf

TRANSFORMED MATHEMATICS SCORE	SKILL LEVEL *each level builds on the one before and the requires additional skills *the table indicates where grade 4/5 and grade 8/9 skills deviate in a level.
Level 0 **0-125**	-Add and subtract decimals. -Multiply and divide two-digits. -Work with fractions.
Level 1 **125-150**	-Area calculations based on counting units of a gridded mesh and supported with graphical representations. -Recognize the fourth part of a whole.
Level 2 **150-175**	-Recognize the place value of digits in natural numbers. -Read information and data presented in a chart. -Interpret a map representing an itinerary.
Level 3 **175-200**	-Addition involving numbers with three digits. -Locate information on maps. -Recognize numbers written out and their composition and decomposition into tens and units, and considering their positional value in a decimal base. -Solve problems relating to different units of the same measure.
Level 4 **200-225**	-Read information and data presented in a table. -Recognize the rules forming a numerical sequence. -Solve problems involving subtraction, establishing a relationship between different monetary units. -Solve problems involving: the idea of percentage; different meanings of addition and subtraction; addition of rational numbers in decimal form. -Identify common properties and differences between shapes and three-dimensional figures.
Level 5 **225-250**	-Identify the location/movement of object maps, drawn in checkered mesh. -Recognize and use the rules of the decimal numbering system. -Calculate the result of addition using a specific technique. -Read information and data presented in tables.

	-Solve problems involving the calculation of the perimeter of plain figures drawn on squared meshes. -Solve problems using the decimal notation of notes and coins of the monetary system in Brazil; understand exchanges between coins and notes of the monetary system in Brazil -Solve problems with rational numbers expressed in decimal form, involving different of addition or subtraction processes; -Recognize the composition and decomposition of natural numbers. -Identify the division operation as that resolves a given problem. -Identify the location of rational numbers on the number line. **Grade 8/9 Students Additionally Should:** -Identify the location/movement of object maps and other graphic representations. -Read information and data presented in charts. -Locate data in tables with multiple entries. -Associate information presented in lists or tables in a graph and vice versa. -Identify common properties and differences between shapes and figures. -Solve problems involving notions of percentage.
Level 6 **250-275**	-Identify a three-dimensional figure. -Solve problems involving exchanges between coins and notes of the monetary system of Brazil; involving different processes of addition and subtraction; involving the calculation of the area of a figure. -Recognize the decomposition of natural numbers. -Identify the location of rational numbers represented in the form of decimal on the number line. -Establish relationships between units of measurement of time. -Read tables comparing measurements of quantities. -Identify common properties and differences between two-dimensional figures (i.e. the number of sides and types of angles). **Grade 8/9 Students Additionally Should:** -Recognize the decimal representations of rational numbers as an extension of the decimal system, identifying the existence of "orders" such as tenths, hundredths, and thousandths. -Identify the location of integers on the number line.
Level 7 **275-300**	-Solve problems involving natural numbers including problems that require multiplication and division. -Recognize the perimeter and area of shapes and figures. -Identify common properties and differences between two-dimensional figures (i.e. the number and types of sides of angles). -Identify the positions of the sides of quadrilaterals (parallelism); -Solve problems using division with nonzero remainders; and/or involving notions of percentage. -Estimate quantities measured using conventional measurement units. -Establish relationships between units of time. -Calculate the result of a division by a specific technique. **Grade 8/9 Students Additionally Should:** -Identify the location/movement of object maps. -Solve problem with natural numbers and integers involving different operations (addition, subtraction, multiplication, division), -Calculate the numerical value of an algebraic expression. -Interpret information presented by Cartesian coordinates.

	-Identify a system of equations that express a problem.
Level 8 **300-325**	-Solve problems involving the calculation of the perimeter of shapes or figures drawn on squared meshes; involving the calculation of the area of plane figures; involving percentage; involving standard units of measure; involving rational numbers expressed in decimal form. -Estimate the measurement of quantities using conventional units of measure. -Read information and data presented in graphs. -Identify the location of rational numbers represented in the form of decimals on the number line.
Level 9 **325-350**	-Recognize the measures or modifications to the sides of a perimeter or area using squared meshes. -Identify fractions as a representation that can be associated with different meanings. -Solve equations of the first degree with one unknown. -Identify different representations of the same rational number. -Calculate the area of a polygon drawn on gridded mesh. -Recognize the numerical representation of a fraction from filling parts of a figure. **Grade 8/9 Students Additionally Should:** -Recognize circle/circumference, its elements and some of their relations. -Perform conversion and sums of measures of length. -Identify the algebraic expression that expresses an observed sequence of numbers or figures. -Solve problems using relationships between different units of measurement. -Solve problems involving an equation of the 2nd degree. -Identify fractions as representations that can be associated with different meanings. -Solve problems involving decimal banknotes and coins of the monetary system of Brazil; involving various operations (addition, subtraction, multiplication and division); involving the metric relations of the triangle.
Level 10 **350-375**	-Estimate quantities using conventional units of measure. -Identify common properties and differences between shapes and figures. -Calculate the result of the multiplication or division of integers. **Grade 8/9 Students Additionally Should:** -Solve problems involving calculations of the area and perimeter of figures and shapes; involving angles, including using the Law of Angular Tales and using Pythagoras' Theorem; involving notions of volume, involving the metric relations of the triangle. -Recognize the different representations of a rational number. -Establish relationships between proper and improper fractions, and their representations as decimals located in the number line. -Perform simple calculations with approximate values of radicals. -Identify an equation or inequality of the 1st degree that expresses a problem. -Interpret information presented by Cartesian coordinates. -Recognize representations of rational numbers as an extension of decimal number system, identifying the existence of "orders" such as tenths, hundredths, and thousandths. -Identify relationships between quadrilaterals by their properties. -Perform calculations with whole numbers, involving multiple operations (addition, subtraction, multiplication, division, and exponentiation). -Identify quadrilaterals observing the relative positions of its sides.

	-Identify equivalent fractions. -Perform sum and square root calculations. -Perform operations with algebraic expressions. -Identify measures that do not change (angles) and that change (Perimeter, area and sides) in shape transformations (enlargements or reductions) -Recognize angles as a change of direction or turns, identifying angles as straight and non-straight.
Level 11 **375-400**	-Recognize circle/circumference, its elements and some of their relations. -Identify properties of triangles including sides and angles. -Perform rational number operations involving the use of parentheses. -Recognize algebraic expressions that represent a function from a Table. -Recognize similar figures by recognizing proportionality. -Identify the location of rational numbers on the number line; properties of triangles by comparing measurements of sides and angles; common properties and differences between two-dimensional figures; the relationship between the geometric and algebraic representations of an equation of the first degree. -Solve problems involving notions of volume; involving percentage; involving properties of polygons; involving metric relations of the triangle. -Interpret information presented in tables and/or graphs.
Level 12 **400-500**	-Identify non-right angles. -Identify the algebraic expression that expresses a pattern observed in sequences of numbers or figures. -Calculate the diameter of the concentric circles. -Solve problems involving equations of the 2nd degree; involving the properties of polygons; involving proportional change, direct or inverse, between magnitudes.

The advantages of using the Prova Brasil Portuguese and mathematics assessment to measure educational achievement are the reliability and validity of the instrument as developed over 20 years, the comparability to other international measures (PISA), and the carefully developed and detailed scales with which to interpret the scores into a practical understanding of student ability. It allows the study to clearly delineate what is meant by 'educational achievement' and therefore provides greater clarity and transparency in the study. The serious disadvantage of using only these outcome measures is that non-cognitive or other cognitive measures are not considered. This limits this study's claims regarding the extent to which learning resources and teacher qualification predict Paraibano students' scores on these subject-based assessments. This approach has both theoretical (Dreze & Sen, 2001), and empirical (Teddlie & Reynolds, 2000) disadvantages.

3.3.3 *Predictors of Portuguese and Mathematics Outcomes*

The predictors of Portuguese and mathematics outcomes were selected for their relevance to Brazilian educational policy and educational effectiveness research at the outset of this study. Preliminary models were built by the researcher and the results of those models helped to shape the content and structure of the Phase II interview schedule. The results of the qualitative analysis of the Phase II interviews were then used to focus, refine, and re-build the predictors used in the models. The predictors remain grounded in the literature but the Prova Brasil measures and the selection of the predictors for inclusion in the multilevel models was finalized using the results of Phase II of this study. For more detailed information on these processes, please refer to section 3.10 *Points of Intersection*.

Predictors of the educational achievement outcomes examined in this study were modelled on three levels; the student, school, and the school district levels. Table 3.4 displays a summary of how each predictor variable was developed with reference to the literature. The aim of the table is to illustrate the connections between the Prova Brasil variables selected for this study, the measures used in the study, and the basis of these measures in the literature, in order to establish the validity of the predictors and the study itself. The measures and their relationships to the educational achievement outcomes are discussed descriptively at the beginning of chapter 4 and more detailed descriptive information on each of the measures is available in Appendix VI. It is important to note that the predictors were grand mean centered before use in the multilevel models. Grand mean centering is when each score of each variable is subtracted from the mean score for that variable, this process helped to stabilize the multilevel models and ease their interpretation.

Table 3.4: Conceptualizing Predictors of Educational Outcomes

Level	Measures	Variables	Sources
Level 1 Child Socio-economic Background	1. Crowded 2. Wealth 3. Total Mother Education 4. Total Father Education	1. Number of bedrooms in the home, Number of bathrooms in the home, Number of People Living in the Home. 2. Amenities of the Home - Washing Machine, Car, Computer 3. Mother Educational Attainment 4. Father Educational Attainment	Arias et al., 2002, 2004; D. Fernandes, 2005; Harbison & Hanushek, 1992; Hasenbalg & Valle Silva, 1990; Souza & Valle Silva, 1994
Level 2 School School Resources	1. Infrastructure: Roof, Floor, Windows, Water, Electricity 2. Teacher Support 3. Textbooks	1. Condition of the building: Roof, Floor, Windows, Water, Electricity 2. Photocopier, Library, Computers for Teachers, Internet for Teachers 3. Textbooks: Were Textbooks Received,	Barbosa et al., 2001; Biondi & de Felício, 2007; Espósito et al., 2000; Franco et al., 2007; Gaviria et al., 2004; Harbison & Hanushek, 1992; Murillo, 2007; Murillo & Román, 2011; OECD, 2010b; Soares et al., 2001; Velez et al., 1994; Willms & Somer, 2010
Level 2 School Teacher Qualification	1. Level of Education	1. Level of Education achieved	Clotfelter et al., 2007; Darling-Hammond, 2000; Darling-Hammond et al., 2001; Willms & Somer, 2010; Wilson et al., 2001
Level 3 District	1. District Identification Number	1. District Identification Number used to determine the amount of variance attributable to the differences in school districts	This level was added due to the observations of the researcher in Phase II of this study.

In this study, four measures comprised of eight variables were used to represent the socio-economic background of Paraibano students. The 'crowded' measure was computed by adding the number of bedrooms (0 = none, 1 = 1 bedroom, 2 = 2 bedrooms, 3 = 3 or more bedrooms) and number of bathrooms (0 = none, 1 = 1 bathroom, 2 = 2 or more bathrooms) in a house and dividing it by the number of people that live in the house (1 = 1 or 2 people, 2 = 3 or 4 people, 3 = 5 or 6 people, 4 = more than 6 people living in the house). This created a scale variable called 'crowded' with values ranging between 0 (very crowded) and 5 (not crowded). The 'wealth'

measure was created by adding together the student reported presence of a clothes washing machine, car(s), and computer(s) and then dividing the sum by the total number of household measures (3). This created a scale variable called 'wealth' with values ranging between 0 (not wealthy) to 2 (wealthy). Mother and Father Education Level variables are six step ordinal variables taken directly from the survey where 0 = did not go to school, 1 = went to school but did not complete grade 4, 2 = completed grade 4, 3 = completed grade 8, 4 = completed high school, 5 = completed university.

Before proceeding with an explanation of the school level variables, a short discussion regarding rationale is required. With reference to family risk factors and their impact on children's development, Rathbun, West & Walston (2005) identify two methods of creating measures and using variables in predictive analyses, like multilevel models. The first method can be termed "multiple predictor approach" and the other is "composite or cumulative risk index approach". The first method uses individual factors, like 'mothers' education' and 'number of TVs in the home', in order to analyze the unique effects of each factor in predicting variations in child development. With this approach the predictive power of each item can be viewed and evaluations can be made regarding the importance of each factor. The potential drawback of this approach is that is can be problematic in small sample sizes that do not have the statistical power required to tease out the significance of each variable, and there is potential for overlap or correlation between predictors. Regardless of these cautions, the approach is well used in the literature where appropriate (see Burchinal, Roberts, Hooper, & Zeisel, 2000 or Rathbun, West, & Walston, 2005 for example). The second method assumes that factors do not act separately, but act in combination and therefore could be used as indexes to represent thematic or practical combinations of variables. The disadvantages of this approach are that specific relationships between factors and outcomes cannot be detected, and the diversity of measures used in creating indices makes it difficult to compare results across studies (Rathbun et al., 2005).

The present study applies a combination of these approaches. Initially, at the conceptualization of this research project, the researcher modelled the data using the second, "cumulative index" approach. The results of some of these models has been published (see Paget, Malmberg, & Martelli, 2016) and these results were used to develop the qualitative questionnaire used in this

study. The qualitative interviews of this study, however, highlighted specific variables (e.g. photocopiers, computers and internet for teachers etc.) that were of particular relevance and importance to teachers. Therefore, the decision was made to run additional multilevel models using the aforementioned highlighted individual variables as predictors in order to examine in detail the importance of each specific variable. Some of these measures were found to be statistically significant in their own right, for example teacher education levels and whether or not textbooks were received. Others, like teacher supports and infrastructure, showed stronger significant effects when modelled as indices.

At the school level, four variables represented the infrastructure of schools in Paraiba. The roof, floor, windows, and electricity systems of the schools were evaluated by the principal and coded as a four step ordinal variable where 0 = "does not exist", 1 = bad, 2 = ok, and 3 = good. All four of these variables were added together and divided by the number of measures (4) to create a scale variable representing the infrastructure of a school on a scale of 0 to 3. Whether or not textbooks had been received by the school was the most powerful predictor of print resources in schools. Textbooks received was coded as a binary variable with 0 meaning 'no', and 1 meaning 'yes'. The variables related to textbooks were found on the teacher's survey. Please note the additional explanations of the variables originating from the teacher's survey in the next paragraph. The teacher support variables, specifically, photocopier, library, computers for teachers, and internet for teachers, were rated on the same scale as the infrastructure variables on the Prova Brasil survey. Again the four measures were added together and divided by the number of predictors (4) to create another scale variable with values ranging from 0 to 3. These teacher support variables were taken from the school or principal surveys. In total there are 9 variables representing school resources at the school level. All variables, except those related to the textbooks, are coded on a four step ordinal variable and originate from either the principal or the school surveys.

There are six measures on the Prova Brasil surveys that represent teacher qualification at the school level: teacher education level, time since graduation from their last program, what kind of institution the degree was obtained from (e.g. private university vs public institution), how the degree was completed (e.g. distance education or in person), and the extend of post-graduate

studies and areas of post-graduate studies. A variety of combinations of these measures, including the addition of individual variables and combination of indexed variables, were tested in the models. The most significant predictor of student Portuguese and mathematics outcomes was the level of education of the teacher. The level of education of the teacher is represented by a six step ordinal variable (0 = did not complete middle school, 1 = completed middle school, 2 = completed high school, 3 = completed an undergraduate degree or license in an area other than education, Portuguese or mathematics, 4 = completed an undergraduate degree in education, 5 = completed an undergraduate and license in Portuguese or mathematics. One of the problems with the use of some of the teacher qualification variables was that in 2009 and 2013, for the questions related to the post-graduate studies, the response option "this does not apply to me" was not given. Therefore, the data was likely to have had more missing data points than were really missing (i.e. if the teacher had already indicated that they did not have a post-graduate degree then they could not complete the questions asking about their post-graduate degree, and if the response option "this does not apply to me" was not available, then they would have had to skip the question resulting in missing data). The researcher attempted to add in values manually by referencing the previous questions however there is still a possibility that the results were skewed when entered into the model.

Another issue related to the use of items from the teacher survey, including teacher education level and textbooks received, is that, unfortunately, there is no teacher identification number or class identification number on the Prova Brasil surveys. There is, therefore, no way to link students to teachers inside schools. Instead, the teacher data was aggregated to the school level (i.e. teacher values were averaged at the school level so each school has only an average teacher value for each of these items). This is a serious limitation of this study as precision and statistical power are lost through this operation. It does, however, remain possible to make generalizations about the average effects of teacher qualification on student achievement.

The third level of the model is the school district level. At this level, the school district identification number is used to nest the schools within districts. Originally, the researcher did not envision this third level as part of the analyses. The qualitative interviews of Phase II of this study and the school site observations made by the researcher has prompted the inclusion of this

higher level so that possible district variance could be explored. For more details on this process, where qualitative findings fed back to inform the further quantitative analyses in this mixed methods study, please see section 3.10 *Points of Intersection*. Of note, all variables were subject to multiple imputation procedures before indices were computed in order to maximize the information available in generating the indices.

3.4 *Treatment of Missing Data*

Becker and Powers (2001) noted in their investigations of the effects of class size on student performance, that studies that had previously excluded students with missing data had reached the conclusion that class size did not make a difference to student performance. They found, however, that when missing data was treated using the Heckman (1979) estimation, that the results of subsequent analyses changed dramatically. In this case, Becker and Powers (2001) found that class size did in fact predict variation in student performance and that the missing data represented biases in the data as students in large classes were more likely to drop out of school and/or the survey. It is therefore clear that how a researcher handles missing data is integral to valid results, and that bias may be introduced into the results without clear and appropriate procedures to address missing data. In large scale studies, particularly in the social sciences, missing data is a common problem (Cheema, 2014). Reviews of the literature in the social sciences have indicated that missing data treatment methods are frequently either under utilized or inappropriate methods are applied (Jelicić, Phelps, & Lerner, 2009; Jeličić, Phelps, & Lerner, 2010; Oh, 2003; Peugh & Enders, 2004). The purpose of this section is to outline the challenges presented by missing data and articulate how missing data was addressed in this research study.

3.4.1 *Patterns of Missing Data*

There are three principal sources of missing data; noncoverage, total nonresponse, and item nonresponse (Cheema, 2014). Noncoverage refers to the part of the population of interest that did not take part in the research and for whom there is no data available. Total nonresponse is when the subject of the research (e.g. a student) does not give any data for any of the questions in the research study. These two sources of missing data can be addressed using appropriate sampling weights (Cheema, 2014). The final source of missing data, item nonresponse, is the subject of this chapter section. There are three recognized patterns of missing data for item

nonresponse; data that is missing completely at random (MCAR), data that is missing at random (MAR), and data that is missing not at random (MNAR). This section details the patterns of missingness in data sets in order to justify the approach to missing data taken in this research.

Missing Completely At Random (MCAR): Under an assumption of MCAR, the probability that missing data on Y is unrelated to the value of Y itself or to the values of any other variables in the data set is held (Allison, 2007; Baraldi & Enders, 2013; Peugh & Enders, 2004; Saunders et al., 2006). This does not necessarily mean that the pattern of missing data is random, only that missingness does not depend on the values of the Y data (missing or observed) (Little & Rubin, 2002). Although the MCAR assumption allows that missingness on Y is related to missingness on some other X variable, it is still a strong assumption to make that many researchers suggest is unlikely to be satisfied in practice (Baraldi & Enders, 2010). If the MCAR assumption is satisfied for all variables in the analyses then the complete cases can be viewed as a random subsample of the population (Allison, 2007). Formally, MCAR can be expressed as:

$$f(M|Y, \phi) = f(M|\phi) \text{ for all } Y, \phi,$$

(Little & Rubin, 2002)

Where complete data is symbolized as $Y = (y_{ij})$, the missing data indicator matrix as $M = (M_{ij})$, and uncertainty as ϕ. The equation expresses the idea that the missing data does not depend on the values of Y, missing or observed (Little & Rubin, 2002).

Missing At Random (MAR): The data on Y is considered to be MAR if the probability of missing data on Y is unrelated to the value of Y after controlling for other variables in the analyses (Allison, 2007). In other words, the missingness is related to other measured variables but not to the underlying values of the incomplete variable itself (Baraldi & Enders, 2010, 2013; Cheema, 2014; Peugh & Enders, 2004; Saunders et al., 2006). In educational studies, the most likely assumption is that data is MAR (Baraldi & Enders, 2010). MAR can be formally expressed as:

$$f(M|Y, \phi) = f(M|Y_{\text{obs}}, \phi) \text{ for all } Y_{\text{mis}}, \phi.$$

(Little & Rubin, 2002)

In this equation Y_{obs} represents the observed values of Y, and Y_{mis} represents the missing values of Y. Hence the equation expresses that missingness depends only on the observed components of Y and not on its missing components (Little & Rubin, 2002).

Missing Not At Random (MNAR): Data is considered MNAR when the probability of missing data on a Y variable is directly related to values on the hypothetically complete Y variable (Baraldi & Enders, 2013; Cheema, 2014; Peugh & Enders, 2004; Saunders et al., 2006). Specifically, if the cases with missing data on a particular variable tend to have lower or higher values on that variable than those with data present after controlling for the observed variables, then the data is said to be MNAR (Allison, 2007). Little & Rubin (2002) express this formally as:

$Y = (y_1, \ldots, y_n)^T$ and y_i symbolize the value of a random value for unit i

$M = (M_1, \ldots, M_n)$ and $M_i = 0$ for observed values, and $M_i = 1$ for values that are missing

If the joint distribution of (y_i, M_i) is independent, specifically the probability of values being observed does not depend on the values of Y or M, then:

$$f(Y, M|\theta, \phi) = f(Y|\theta) f(M|Y, \phi) = \prod_{i=1}^{n} f(y_i|\theta) \prod_{i=1}^{n} f(M_i|\, y_i, \phi),$$

Where

$f(y_i|\theta)$ symbolizes the density of y_i indexed by θ, as the unknown parameters

$f(M_i|\, y_i, \phi)$ represents the density of a Bernoulli distribution for M_i (as described above)

And probability is symbolized as $\Pr(M_i = 1|\, y_i, \phi)$ that y_i is missing

If the missing data mechanism depends on y_i then the data is described as MNAR.

It is important to note that patterns of missing data are a function of the chosen variables for a particular analysis rather than a property of the data set itself. A single data set could have variables that are MCAR, MAR, and MNAR. If the data the variables of interest are assumed to be MCAR or MAR, then the missing data mechanism is considered to be *ignorable* (Pigott,

2001). More specifically, the missing data mechanism is *ignorable* if the data is MCAR or MAR and the parameters that govern the missing data process are unrelated to the parameters to be estimated (Allison, 2007). The term does not intend to imply that a researcher can ignore their missing data, only that there is no need to model the missing data mechanism as part of the estimation process (Allison, 2007; Pigott, 2001). In contrast, *nonignorable* missing data mechanisms are associated with data that is not MCAR or MAR, and researchers must then model the missing data mechanism as part of the estimation process, using, for example, the Heckman (1979) two stage estimator, because the parameter estimates of the method of analysis are not independent of the process through which the data is missing (Allison, 2007; Cheema, 2014). It is acknowledged that, at present, there is no well developed method of dealing with data that is MNAR (Baraldi & Enders, 2010). Data that is missing is assumed to hide true values that are meaningful for analyses, and it follows that processes that aim to impute or predict unobserved values are an integral step towards establishing the validity of the study (Little & Rubin, 2002).

3.4.2 *Treatment of Missing Data*

Cheema (2014) argues that the best way to handle missing data is to evaluate each data set individually and from there select the most appropriate way to approach its missing data. Enders (2010), however, points out that researchers who are not familiar with quantitative methods may not have the expertise to evaluate the appropriateness of a missing data method in the context of their research. This, in turn, may lead to researchers using methods that are too simplistic and are known to produce biases. The purpose of this chapter section is to introduce the most common methods of treatment for missing data in order to justify the approach taken to missing data in this research study.

If the amount is missing data is extremely low, usually less than five percent, and the data is assumed to be MCAR, then it is possible to ignore the missing data. In these cases, the reduced sample size can still accurately represent the target population (Cheema, 2014). These methods, usually termed ‘complete case analysis’, include primarily the processes of listwise deletion and pairwise deletion and are generally considered to be inefficient. They both can lead to a loss of precision in analyses, a loss of statistical power, and biases in the sample (Abrahantes, Sotto,

Molenberghs, Vromman, & Bierinckx, 2011; Baraldi & Enders, 2010; Cheema, 2014; D. R. Johnson, 2011; Little & Rubin, 2002). Listwise deletion is a process whereby observations with missing values on one or more variables of interest are simply discarded (Cheema, 2014). Pairwise deletion discards observations with missing data only on variables involved in a statistical procedure (Cheema, 2014). Allison (2007) warns that even when the MCAR assumption is held and there is only a small amount of missing data in the data set, the listwise procedure can still yield larger standard errors. Further, although pairwise deletion can be more efficient than listwise deletion, if the MCAR assumption does not hold, this method can produce serious sample bias (Allison, 2007). Sometimes, particularly when covariate information is limited but the sample size is large, weighting procedures can be used to address missing data. Weighting procedures modify the weights of variables in an attempt to account for item nonresponse as if it was part of the sample design (Little & Rubin, 2002). Like listwise and pairwise deletion, this method is not considered to be an appropriate method of handling missing data in most cases.

Alternatively, a researcher can use explicit modelling methods to address their missing values. Explicit modelling methods are based on formal statistical models and therefore the assumptions are explicit (Little & Rubin, 2002). These methods include mean imputation, regression imputations, hot deck imputation, and stochastic regression.

Mean Imputation replaces the missing data on a variable with the mean of non-missing data values for that variable (Cheema, 2014; Little & Rubin, 2002). This method is known to produce biased estimates, and it is generally thought best to avoid it (Allison, 2007).

Regression Imputation is where missing values are estimated by regressing the variable with missing data on all the variables in the data with known values. This provides predicted values for the data that is missing (Cheema, 2014; Little & Rubin, 2002). The downfall of this procedure is that it does not model natural variation and therefore produces biased standard errors of parameter estimators (Cheema, 2014).

Hot Deck Imputation is where missing values are replaced with observed values in the data set that are similar in their responses (Little & Rubin, 2002). The hot deck theory is not as well developed as some of the other missing data methods, but the method does have its advantages. Hot deck methods avoid cross-user inconsistency that can occur when multiple researchers use their own missing data adjustments, the method does not rely on model fit and is therefore potentially less susceptible to model misspecification, it is an efficient method in that is uses all available data, and only plausible values can be imputed because the values are drawn from observed values (Andridge & Little, 2010). Hot deck imputation, however, is not assumption free. The choice of metric that matches donor values to recipient values can affect the imputation, and, like with regression imputation, this method does not necessarily take into account the natural variation of values (Andridge & Little, 2010).

Stochastic Regression Imputation replaces missing values with a value predicted by regression imputation and then each score is augmented with a normally distributed residual that is generated to restore variability to the predicted value (Baraldi & Enders, 2013; Little & Rubin, 2002). The corresponding standard errors, however, tend to be too small and therefore can lead to an increased probability of Type I errors (Baraldi & Enders, 2013).

Model based procedures, sometimes referred to as implicit modelling of missing data (Little & Rubin, 2002), outline an algorithm for model assumptions underlying the approach taken. These models address the likelihood and posterior distribution under the model as the parameters are being estimated using procedures such as maximum likelihood. The advantage of this method is that it generates estimates of variance that takes into account the incompleteness of the data (Little & Rubin, 2002). The two model based procedures are maximum likelihood and multiple imputation. Maximum likelihood procedures will be described in brief but multiple imputation, as the missing data method used in this study, will be articulated in greater depth.

Maximum Likelihood (ML) is a complex mathematical process that, in simplified terms, can be used to identify the parameter values that have the highest probability of producing the sample's data. It does this by "auditioning" different parameter values in a loglikelihood function in order to quantify the standardized distance between observed data and the parameters of interest so that

parameter estimates can be made that minimize this distance and therefore best fits the data (Baraldi & Enders, 2010). The ML process does not discard data, nor does it impute it, instead it provides estimates of the parameters of the missing data. These parameter estimates have been found to yield unbiased parameter estimates when the data is MAR and is normally distributed (Baraldi & Enders, 2010; Pigott, 2001). It is noted that even when this assumption of normality is violated, it has been found that running these analyses on missing data remains superior to not adequately addressing the missing data in a research study (Cheema, 2014). A slight variation of this process is the maximum likelihood expectation maximization process which also "auditions" values to the replace the missing data and then maximizes the expectations formed with these initial values in an iterative sequence (Cheema, 2014). Although when dealing with normally distributed data and large sample sizes, maximum likelihood and its alternative, multiple imputation, both yield unbiased estimates, maximum likelihood has difficulty addressing categorical and continuous variables at the same time (Enders, 2017). Multiple imputation, therefore, is a superior tool in the behavioural sciences due to the frequency of both categorical and continuous variables on large scale surveys (i.e. in education we often see mother's education as a categorical background variable used to control a student's score on a standardized test – a continuous variable). Enders (2017) further suggests that maximum likelihood also has more difficulty addressing data in a multilevel structure (i.e. students nested in classrooms, nested in schools).

Multiple Imputation is a three stage process wherein the data is imputed, analyzed, and then pooled (Baraldi & Enders, 2010, 2013; Enders, 2017). The imputation stage generates a specified number of data sets (usually between three and twenty), each of which has filled in the missing data values with different estimates (Baraldi & Enders, 2010). The data augmentation process is most widely used on data sets with normally distributed data. The data augmentation process uses a two step iterative process to generate estimates (Baraldi & Enders, 2010; Peugh & Enders, 2004). The first step is called the *I Step* and it is the same process as stochastic regression. The estimates of means and covariances are used to generate regression equations that predict the missing values using the observed values. These regression equations produce predicted values and a normally distributed residual term in order to restore variability to the data. The second step is the *P Step* wherein the data is taken to the posterior step. At this point

Bayesian estimation principles are used to generate new estimates of the means and covariances. Random residual terms are then added to each of these estimates. This process creates a new set of parameter values that differs randomly from those that were used to create the imputed values in the *I Step*. These new parameter values are then used to generate a new set of regression equations that are used as the data re-enters the *I Step*. The *I Step* then produces new imputations that differ from the previous *I Step*, which are then subject to another *P Step*. Repeating this iterative process multiple times will produce multiple copies of the data set with different estimates of the missing data. The number of iterations between each data set created is specified (e.g. 100 iterations between each of 5 data sets), and conceptually, these imputed values in the data sets represent random samples from a distribution of plausible replacement values for the missing data and therefore accounts for the uncertainty of the missing values. Rubin (1987), Croninger & Douglas (2005), Schafer (1997) and Graham, Olchowski & Gilreath (2007) suggest that between 2 and 10 data sets are required in order to generate satisfactory estimates. It is noted that Bodner (2008) has recently suggested that this is not enough, however, the computational effort required for the generation of more than 10 data sets remains a significant barrier (Graham et al., 2007; Saunders et al., 2006). In the analysis phase each data set is analyzed and several estimates of each parameter and standard error are produced. The data is then taken to the pooling stage where the estimates and their standard errors are averaged into a single set of values (Baraldi & Enders, 2010). This is termed *convergence* and it is achieved when the distribution of parameters stabilizes (Peugh & Enders, 2004). It is important to note that when specifying the multiple imputation model, auxiliary variables, or variables related to the variables being imputed even when they will not be used in the analysis, should be included in the procedures as those variables are potentially related to the missingness (Allison, 2000; Enders, 2017; Larsen, 2011; Peugh & Enders, 2004; Schafer, 1997). The multiple imputation model, therefore, must be at least as general as the analysis model.

The classic approach to multiple imputation uses a multivariate regression model where missing values on variables are outcomes and complete variables are the predictors (Enders, 2017), most commonly, the Markov Chain Monte Carlo (MCMC) algorithm is used and this is particularly effective with normally distributed variables that can all be imputed simultaneously (Wu, Jia, & Enders, 2015). This is called a joint model approach. In this process, all incomplete variables

are imputed in the *I Step*. Another approach is called chained equations or fully conditional specification which uses a series of regression models to generate the imputations (Enders, 2017; Wu et al., 2015). This method is ideal for mixtures of categorical and continuous variables because each imputation step can be tailored to the metric of the incomplete variable. This process can also accommodate some combinations of variable metrics. Although there have been numerous authors who have suggested that the rounding of categorial variables after a normal joint MCMC method imputation is acceptable and yields unbiased samples (see Graham, 2009; D. R. Johnson, 2011 for example), more recent research suggests a latent variable imputation or probit regression is a more appropriate method of dealing with categorial variables in multiple imputation processes (Enders, 2017; Wu et al., 2015). As with maximum likelihood, multiple imputation does require the assumption of an ignorable missing data mechanism (MAR) and a normal distribution of variables.

One of the reasons that the multiple imputation method is considered superior to single imputation methods is because multiple imputation uses both within- and between- imputation variance in the standard error calculations, therefore, it is unlikely that the standard errors would be underestimated as is the case with single imputations (Allison, 2000; Baraldi & Enders, 2010; Pigott, 2001). Another advantage of multiple imputation is that analyses that are specific to a research question can be carried out, and the data can be completed and used as if there were no missing data (Baraldi & Enders, 2010, 2013; D. R. Johnson, 2011; Pigott, 2001). Multiple imputation can be used in conjunction with almost any analytical model, and has proven itself robust even when assumptions of normality are violated (Baraldi & Enders, 2010; Peugh & Enders, 2004; Pigott, 2001). When *n* is large, multiple imputation can compensate for large amounts of missing data by increasing the number of iterations and data sets produced (Baraldi & Enders, 2013; Cheema, 2014). Importantly, it has been demonstrated that while multiple imputation does very well when *n* is large, another multiple imputation strategy, or maximum likelihood, may be a better route for small sample sizes (Cheema, 2014). Multiple imputation, due to its specific advantages in dealing with both categorical and continuous variables, and its ability to address multilevel structures in data the preferred approach to item nonresponse in surveys in educational research (Drechsler, 2015).

3.4.3 *Missing Data in this Study*

When the datasets from each year (2007, 2009, 2011, 2013) are combined, and the student total nonresponse cases were excluded (i.e. student did not answer any of the Portuguese or mathematics questions or fill out the socio-economic survey), there are a total of 281,182 students in 1866 schools in 268 districts that could be included in this study. There were, on average, 151 students per school (Range = 4 to 1268). For the 17 variables of interest in this study, 12.7% of the data points were missing. Table 3.5 displays the missing value percentage totals by variable, by grade, and by year. Over all the years combined, the missing values for each variable ranged between 4.7% and 10.5%. Within each year, the missing values per variable ranged between 0% and 25%. 2007 and 2011 had the least amount of missing values, and 2013 had the most amount of missing values per variable. In general, students in grade 8/9 had less missing data than students in grade 4/5. The variables that make up the wealth measure of this study (washing machine, car, computer) had missing values ranging between 1.1 and 24.4% with extremely low missing values (5% or under) in all years except 2013. The variables that make up the crowded measure of this study (number of bathrooms, rooms, and people living in the home) had a similar missing value range of 1-25%, again with missing values of 5% or under for the first three time points of the study. Mother and father education level variables were more consistent, with missing values ranging from 2.9-13.2%. Again 2013 had the largest amount of missing values, but the discrepancy was not as large as the wealth and crowded variables. The infrastructure variables (roof, floor, windows, electricity) had low missing value percentages, ranging from 0.9-19%. Again 2013 had the highest amount of missing data. The books received variable had extremely low missing value percentages ranging from 0.6-5.7% for 2007, 2009, and 2011. The missing value percentages were highest for 2013 with those values 16.9 and 12.6%. The teacher support variables (photocopier, library, computer for teachers, internet for teachers) had some the highest average amounts of missing variable data and, other than 2007 for which most data was available, varied less between the years. These values ranged from 0.8-20.6%. The teacher education variable had low amount so missing values for every year except 2013 where there was a spike in missing values. The missing values ranged from 0-19.7%.

Table 3.5 Missing Data Percentages By Variable By Year By Grade

VARIABLE	2007 %missing		2009 % missing		2011 % missing		2013 % missing		TOTAL % missing
	Gr 4	Gr 8	Gr 5	Gr 9	Gr 5	Gr 9	Gr 5	Gr 9	**ALL**
washingmachine	4.3	1.7	5.5	2.4	3.3	1.7	13.4	4.8	**4.8**
car	3.9	1.7	3.8	1.9	3.1	1.3	19.6	5.1	**5.2**
computer	4.1	2.5	2.9	1.5	2.8	1.1	24.4	4.9	**5.7**
bathrooms	3.1	1.5	5.1	2.4	2.4	1.0	19.8	13.2	**6.2**
rooms	4.1	4.0	5.7	2.5	3.2	1.7	20.8	17.1	**7.6**
peopleinhome	5.7	3.3	5.1	3.0	2.8	1.1	25.0	15.7	**7.7**
motheredu	7.2	3.8	7.8	3.3	5.2	3.2	12.2	10.3	**6.7**
fatheredu	5.5	3.5	6.7	2.9	8.6	10.8	13.2	9.2	**7.6**
roof	2.5	2.5	5.0	4.3	2.0	1.3	9.1	10.7	**4.7**
floor	2.1	2.0	6.1	5.3	1.3	2.3	12.1	12.7	**5.5**
windows	2.5	2.7	6.4	5.8	15.5	14.0	15.0	15.4	**9.2**
electricity	2.4	2.2	5.9	5.2	1.5	0.9	19.3	17.2	**6.9**
booksrecieved	0.7	0.6	6.1	5.7	1.0	1.5	16.9	12.6	**5.7**
photocopier	9.0	7.2	6.7	7.0	2.4	1.4	22.5	22.1	**9.9**
library	3.1	4.6	16.0	13.9	2.1	1.7	9.9	12.8	**8.1**
compteachers	3.4	4.8	15.0	12.4	1.7	0.8	17.5	20.6	**9.6**
internetteachers	4.0	5.4	15.3	12.5	2.9	2.0	20.6	20.6	**10.5**
teacheredulevel	1.4	1.0	6.7	6.7	0.0	0.8	19.7	16.2	**6.7**

Little's test for MCAR came back significant for all of the data sets, therefore the missing values in the data sets are not considered to be MCAR. Although no empirical measure for MAR exists, the literature suggest that educational survey data is usually MAR (Baraldi & Enders, 2010), and therefore it is assumed that the data in this study is MAR. Due to the advantages of multiple imputation of data over maximum likelihood for large scale, hierarchical data with both continuous and categorical predictors, multiple imputation was carried out on the missing data of this study (Drechsler, 2015). Multiple imputation was carried out on each data set separated by year and by grade (i.e. 2007 grade 4, then 2007 grade 8, then 2009 grade 5, then 2009 grade 9 etc.) in order to reduce the complexity and size of the data sets and increase the chances of convergence. The Bayesian two-level unrestricted model (H1 model) in MPLus version 7 (Muthén & Muthén, 2012) was used to address the hierarchical nature of the data and the

combination of categorical and continuous variables of the study. Five data sets were imputed, with the MPlus default of 100 imputations between data sets, then the data sets were analyzed and pooled. According to Rubin (1987), five data sets produces a RE of >.9804. The vast majority of the data, with the notable exception of the 2013 data, had well under 10% missing values and so five data sets appears sufficient for this study. In the case of the 2013 data sets, although more data sets would be ideal due to the larger amount of missing data, the imputation process was limited by the time and computational power available to the researcher. It is important to note that Rubin indicates that even when 20% of the data is missing, five data sets still produces a RE of >.9615. This means the minimum requirement of .95 and is therefore deemed adequate by the researcher. Due to the size and complexity of the data sets, a three-level model was not able to converge. This is a limitation of the missing data analysis as any variability in the data attributable to the school district level could not be used to estimate the imputed values. This has the potential to significantly affect the 2013 data which has the largest amount of missing data and the largest amount of variation attributable to the school district level.

3.5 *Analytical Strategy*

Three level multilevel models were built using the Portuguese and mathematics Prova Brasil scores for students in grade 4/5 and 8/9 as outcome measures, and using predictors arising from current Brazilian educational policies, based in the literature, and shaped by the results of Phase II of this study. These analyses aim to address how the *frequency* of school resource and teacher qualification effect the Prova Brasil scores of students in Paraiba.

3.5.1 *Multilevel Models*

The Portuguese and mathematics outcomes used in the analyses are taken from the Prova Brasil assessments of 2007, 2009, 2011, and 2013 for grade 4/5 and grade 8/9 Paraibano students. SPSS version 23 is used to analyze each of these data sets in a multiple regression framework with the aim of identifying the contribution of each variable to predicting the variation in the dependant outcome variable. For both Portuguese and mathematics educational achievement outcomes in each of the four data years, for both of the grade years, groups of predictive variables were entered hierarchically in blocks as illustrated by the following descriptions and

equations. Of note, despite the methodological and practical drawbacks of such an approach, prior attainment at the school level was not controlled for in these models. This is because the number of schools that appeared in all four years, despite the Prova Brasil census based sampling strategy, was very small. Only about 600 schools appeared across all four time points. This left the researcher with a sample size two-thirds smaller in each year if only those schools had been retained for the study. Further, and perhaps more convincingly, schools that appeared in all four time points were larger and had more resources than the schools that would have been dropped from the sample had the researcher taken this approach. Given historical observations (Harbison & Hanushek, 1992) and the researcher's own fieldwork observations that it is often the smallest schools that have the worst conditions and require the most resource support, the decision was made to retain all schools in all years in the sample instead of excluding schools if they did not appear in all four time points in order to be able to control for prior attainment at the school level in the models. This is a serious limitation to this study and will have consequences on the findings and the applicability of the conclusions of this study. It is also noted that multivariate models, in this case models with both Portuguese and mathematics as the dependant variable, offer some advantages in examining how the independent variables affect student scores. This is one of the researcher's suggestions for further study.

Model 1: Null Model

This model allows the researcher to examine the variance components in the Portuguese and mathematics outcomes on the Prova Brasil assessments for Paraibano students. A simple three level model can be expressed as:

$$\beta_{pqk} = \gamma_{pq0} + \sum_{S=1} S_{pq} \ \gamma_{pqs} W_{sk} + u_{pqk}$$

Where Level 1 is defined as π, Level 2 is defined as β, and Level 3 is defined as γ. γ_{pq0} is an intercept, W is the Level 3 predictor, and u_{pqk} represent Level 3 random effects.

Model 2: Student Socio-Economic Background Characteristics

This Level 1 model establishes the predictive relationship between the educational achievement outcome variables (Portuguese and Mathematics Prova Brasil results for Paraibano students) and student socio-economic background characteristics in order to establish the latter as a control for the ensuing models. In these equations *i* is the student in *j* school, in *k* school district.

This model can be expressed with the equation:

$$Y(\text{Portuguese or Mathematics grade 4/5 \& grade 8/9})_{ijk} = \pi_{0jk} + \pi_{1jk}\,(\text{wealth})_{ijk} + \pi_{2jk}\,(\text{crowded})_{ijk} + \pi_{3jk}\,(\text{motheredu})_{ijk} + \pi_{4jk}\,(\text{father edu})_{ijk} + \varepsilon_{ijk}$$

Model 3: School Resources: Infrastructure

This Level 2 model examines the predictive relationship between the Portuguese and mathematics outcome variables and the school infrastructure variable after controlling for student socio-economic background characteristics.

This model can be expressed with the following equation that builds on the one before:

$$\pi_{0jk} = \beta_{00k} + \beta_{01k}\,(\text{infra})_{jk} + r_{0jk},$$
$$\pi_{1jk} = \beta_{10k}$$

Model 4: School Resources: Textbooks

This model examines the predictive relationship between the Portuguese and mathematics outcome variables and textbook resources after controlling for student socio-economic background characteristics and after taking into account the predictive value of school infrastructure.

This model can be expressed with the following equation that again builds on the one before:

$$\pi_{0jk} = \beta_{00k} + \beta_{01k}\,(\text{infra})_{jk} + \beta_{02k}\,(\text{booksrecieved})_{jk} + r_{0jk},$$
$$\pi_{1jk} = \beta_{10k}$$

Model 5: School Resources: Teacher Support

This model examines the predictive relationship between the Portuguese and mathematics outcome variables and the teacher support variable after controlling for student socio-economic background characteristics and after taking into account the predictive value of school infrastructure and textbook resources.

This model can be expressed with the following equation that again builds on the one before:

$\pi_{0jk} = \beta_{00k} + \beta_{01k}\,(\text{infra})_{jk} + \beta_{02k}\,(\text{booksrecieved})_{jk} + \beta_{02k}\,(\text{teachersupport})_{jk} + r_{0jk}$,

$\pi_{1jk} = \beta_{10k}$

Model 6: Teacher Qualification: Teacher Education Levels

This model examines the predictive relationship between the Portuguese and mathematics outcome variables and the teacher education level variable after controlling for student socio-economic background characteristics and after taking into account the predictive value of school infrastructure, textbook resources, and teacher support.

This model can be expressed with the following equation that again builds on the one before:

$\pi_{0jk} = \beta_{00k} + \beta_{01k}\,(\text{infra})_{jk} + \beta_{02k}\,(\text{booksrecieved})_{jk} + \beta_{02k}\,(\text{teachersupport})_{jk} + \beta_{02k}\,(\text{edulevel})_{jk} + r_{0jk}$,

$\pi_{1jk} = \beta_{10k}$

The third level of the model simply examined the impact of the school district on the variance component and could be expressed as:

$\beta_{00k} = \gamma_{000} + \gamma_{001}(\text{id_municipio}) + u_{00k}$,

$\beta_{10k} = \gamma_{010}$,

$\beta_{02k} = \gamma_{020}$.

PHASE II

Sections 3.2 to 3.7 outline the research design, including the philosophical and theoretical continuity underpinning this research and their connections to the methodology of the study, as well as the research method, sampling strategy, research instrument, and analytical strategy for Phase II of the study.

3.6 *Research Design and Methodology of Phase II*

This section articulates a pragmatic approach to qualitative research. The section then links this approach to the core concerns of qualitative research which are that research is *naturalistic*, *descriptive*, inductive, and is concerned with *process* and *meaning*. Further, a discussion of the ways in which this research is credible, dependable, transferable, and confirmable is discussed. This chapter section then applies the fundamentals of both pragmatism and qualitative research to the five dimensions of the chosen theoretical model, the DASI model, *focus*, *stage*, *quality*, and *differentiation* and to this study.

3.6.1 *A Pragmatic Approach to Qualitative Inquiry*

When navigating contentious terms such as "educational effectiveness" and slippery concepts like "teacher perceptions", pragmatism offers practical processes for clarity and understanding in a researcher's qualitative inquiry project. Dewey, problematizing the pragmatic suggestion that meaning lies in the (linguistic) relationship between the subject and their experiences, states that meaning is stored in words, but that their containment is not "wholly aseptic; words often corrupt and modify the meanings they are supposed to keep intact" (Dewey, 1910 p.174). Gadamer further argues that language is "recognized as belonging to the inner structure of understanding. This moves the whole problem of language from its peripheral and incidental position into the center of philosophy"(Gadamer, 2004 p.306). Neo-pragmatists like Gadamer and Rorty emphasize the importance of language with statements asserting that human experience is "essentially linguistic" (Gadamer, 1976) and that we are "incarnated vocabularies" (Rorty, 1989). Researchers, as a consequence, must negotiate the meanings of the terms that they use with their participants, address the complexities of reflexivity in representing the perceptions and experiences of research participants, and must accept that these definitions are only valid until the point where they no longer serve the function of representing the phenomenon that they had

originally intended and a superior explanation is found. Neo-pragmatists focus on the importance of meaning negotiation of language not to descend into philosophical obscurity and irrelevance, but instead to provide the clarity called for by Peirce with the statement, "a clear idea is defined as one which is so apprehended that it will be recognized wherever it is met with, and so that no other will be mistaken for it" (Peirce, 1878 p.286). Gadamer provides researchers with the process to bridge meanings and develop clarity. He argues that the reduction of meaning to the author's own is just as inappropriate as the reduction of experiences to the intentions of the subjects, that, instead, real understanding lies in the "fusion of horizons" (Gadamer, 2004 p.366) between researcher's and participants' understanding, knowledge, and application. Neo-pragmatists thus offer researchers the processes with which to clearly and concretely develop terminology and capture the meanings of participants as they linguistically express their experiences at the time they are exchanged.

Within the context of this research, this fusion of horizons, or discovery of participant purpose as it meets researcher understanding, is obtained through an interview process. Terms, meanings, or expressions that were not understood clearly by the researcher were clarified at the time of the interview. If the researcher was at all in doubt as to the meaning of the interviewees, deeper, probative questions were asked. Interviews were reviewed, at least partially transcribed, and reflected upon in conversation with an academic peer the same day as the interview took place.[4] This minimized the chances of the researcher later forgetting context, implied meaning through subtle conversational hints, and served to enrich reflexive supporting notes. Further, this process helped to direct and clarify later interviews.

3.6.2 *Fundamentals of Qualitative Research*

Bogdan & Biklen (2007b) list five features of qualitative research that form the foundation of Phase II of this research. The first is that qualitative inquiry is *naturalistic* which identifies real life settings as the direct source of data, accepts that the researcher is the key instrument in the collection of this data, and is primarily concerned with context. As a complementary and

[4] This peer researcher accompanied the researcher throughout the fieldwork. The peer researcher did not speak Portuguese and had not been to Brazil before. This peer researcher also re-coded the interview transcripts and details on this and further details regarding the peer researcher can be found in section 5.1.2 and in footnote 4.

augmentative approach to a solely quantitative approach to educational effectiveness in Brazil, this emphasis on the real life settings of teachers in classrooms in Brazil has the potential to enrich the understandings and conclusions of this study as they are placed within their context. Qualitative data is *descriptive data* which means that the data collected from this qualitative inquiry is primarily words instead of numbers or counts. Qualitative data analysis can therefore be *inductive*, which can mean that theories or conclusions can emerge from the study, from the 'bottom up'. Further, qualitative methods are particularly concerned with *process*; qualitative inquiries focus on how data was collected and interpreted and the experience within those processes. This is partly in order to provide credible and dependable summaries but also arises out of a genuine concern to represent context and provide clarity to bias or researcher construction of the data. Finally, qualitative inquiry is concerned with *meaning*. As such, qualitative inquiry delves into issues of perspective and the construction of reality. Again, this generally means that qualitative research is careful to prepare, describe, analyze, and critically reflect on processes and outcomes with an eye to providing clarity and transparency in the research process.

Key to establishing the value of Phase II findings to the research is addressing the ways in which the research design and implementation is credible, dependable, transferable, and confirmable (L. Cohen et al., 2011; Lincoln & Guba, 1985). The process of establishing credibility in qualitative research refers to the way one designs and proceeds through the research, and the steps taken to remove or lessen the impact of the researcher (Pring, 2000). The aim of the interviews in this qualitative process of the research study is to present naturalistic, descriptive, and meaningful data. The credibility of that data begins with its design. To achieve this quality of data, interviewees were selected who were practicing in the area of interest (H. Rubin & Rubin, 2012). For example, all 16 interviewees in this study were currently teaching either mathematics or Portuguese and were teaching either grade 5 or grade 9 – all the subjects and grade levels tested by Prova Brasil. An attempt was made to interview teachers of both genders, and of varied levels of experience. In selecting interviewees that are knowledgeable on the subject of the research area, it is more plausible that the interviews will be able to provide spontaneous, rich, specific, and relevant answers for the researcher (Kvale, 2011a). Adding to the quality of the interview and the data constructed, the researcher consistently attempted to

interpret the interview as the interview was occurring. Summarizing, asking for clarification, and asking probing questions of the interviewees was a deliberate and consistent effort by the researcher during all interviews. It is anticipated that these processes allowed a more credible establishment of the shared understanding between researcher and interviewee as well as increasing the quality of the interview itself (Kvale, 2011a; H. Rubin & Rubin, 2012). In an effort to further establish the credibility of the findings, peer debriefing was a part of the research process in the field. After each day of fieldwork, the researcher debriefed with a peer and reviewed the interview(s) conducted on that day. This served the purposes of reflecting on any emerging patterns in the data (May, 2001) as well as checking the approaches and assumptions the researcher was making to the data (Harrison, MacGibbon, & Morton, 2001). In addition, the daily peer debriefing helped to uncover misunderstandings or areas of uncertainty that could be addressed with the participant in the field in the subsequent days. This practice had the added benefit of catharsis and reflexivity for the researcher. This reflexivity is a disciplined self-reflection wherein the researcher reflected critically on the interview as it occurred as well as the extent to which the interview was able to address the research aims (Finlay, 2014). In addition to recording the interviews for later transcription and analysis, the researcher took notes during the interview to be shared at the end of the interview in a debriefing process. This debriefing process further summarized the understanding of the researcher on the topics of conversation, and provided an opportunity for the participants to clarify meaning and interpretation (Rapley, 2004). The interview notes also aided in the later interpretation, coding, and analysis of the data.

The dependability of a study's conclusions lies in the systematic and open attempt to record data collection and analysis procedures, and check or critique interpretations made in order to establish their appropriateness in light of the data (Pring, 2000). Dependability is hinged, in large part, on transparency; the extent to which a reader can see the process through which the data was collected and analyzed (H. Rubin & Rubin, 2012). This process also invites criticism of the data and its interpretations in order to reveal and address bias where possible. The dependability of this study will be addressed in several ways. The interview transcripts were first translated by the researcher, but a sample (10%) was then back-translated by an objective third party in order to establish the dependability of the translations. The portions of mismatch were recorded and reported. To establish the dependability of the analysis, the researcher had a

portion of the interview transcripts (10%) re-coded by a peer researcher trained in the coding categories. The percentage of overlap and mismatch was recorded and reported in section 5.1.1 of this thesis and this process serves to establish the intersubjective reliability of the data analysis (Kvale, 2011b; Lincoln & Guba, 1985; Miles & Huberman, 1994). These processes helped to establish consistent or stable coding categories that are trustworthy and plausible (L. Cohen et al., 2011; DeVaus, 2002; Kvale, 2011b).

Transferability, in this study, is best addressed using the notes of the researcher taken in addition to the audio recording of the interview. The notes help to provide rich and detailed information on context, events, emotions, and circumstances and therefore allow the interview transcripts to be understood in greater depth by both the researcher and readers of the study (Holloway, 1997; Lincoln & Guba, 1985). These resources may help to determine the circumstances under which the results are applicable in other circumstances. The inclusion of portions of raw data, field notes, and coding and analysis excerpts into the final research report will address concerns of confirmability for the study (Lincoln & Guba, 1985).

3.6.3 *Qualitative Research Design and Methodology*

Pring (2000), MacIntyre (1984), and Stenhouse (1975), in their applications of pragmatism to educational research, emphasize that although the observance of statistical regularities in educational settings is often a crucial element of research, it is an understanding of the context, intentions, and experience of peoples in that setting that brings meaning to data and the data to meaning. The DASI model provides the structure to combine both an observance of statistical regularities through an examination of the *frequency* of resources in schools in Paraiba, Brazil, and the structure for an observance of these resources in school settings through the key core concepts of *focus*, *stage*, *quality*, and *differentiation*. The strength of this mixed methods approach to data gathering in this study is that it is more likely to explain how and why internal and external school conditions may be influencing student outcomes. Further, the rationale of the DASI model takes the primary classroom processes of teaching and learning as the starting point of development, while recognizing that school level factors facilitate effective teaching and national contexts, in turn, effect school conditions (Scheerens, 2013). Thus, when addressing the aim of this study, to examine the effects of Brazilian educational policies that have increased

funding for school resources and teacher qualification on students' Portuguese and Mathematics achievement and how these policies have impacted schools from the perspectives of teachers teaching in Paraiba, the DASI model and the mixed methods methodology that it supports, serve as relevant and appropriate tools.

The research questions of Phase II of this study are:

3) What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of school resource and teacher qualification policy implementation and their effects on schools and students?

a) What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of school resource policy implementation and their effects on schools and students?

b) What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of teacher qualification policy implementation and their effects on schools and students?

Phase II of this study will use interviews to gather data on teachers' perceptions and experiences of the implementation and effects of Brazilian school resource and teacher qualification policies in Paraibano public schools. Data from these interviews will be organized and coded according to the DASI key core concepts.

3.7 *Interviews*

This chapter section details the method of investigation of Phase II of this study – the interviews.

3.7.1 *Semi-Structured Interviews*

Phase II of this research is designed to explore and elaborate on the findings of Phase I from the perspectives of grade 4/5 and grade 8/9 Portuguese and mathematics teachers in Paraiba, Brazil. Semi-structured interviews have been selected as the method of data gathering for Phase II. Semi-structured interviews allow for systematic inquiry that address the specific research questions of the study, however, they also allow the researcher to investigate related areas of

interest for the purpose of clarity, elaboration, and the pursuit of lines of inquiry related to the research but not originally envisioned by the researcher (May, 2001). The major advantage of this approach is that it may allow participants to answer more on their own terms than a more standardized or structured interview permits, but it still provides a basis for comparability vis-a-vis common questions, themes, and timing (May, 2001). In the semi-structured interviews of this research study the questions were specified, but the interviewer often was able to probe beyond the initial answers for elaboration and clarification. The researcher controlled the fundamental aspects of the interview (timing, topics, questions), and therefore the information flow was directed primarily towards the researcher. These interviews are therefore commonly characterized as conversational rather than a conversation (Rapley, 2004), and this was both the aim and the experience of the researcher in this study. These are common features of semi-structed interviews (Kvale, 2006). The purpose of interviews and the application of the data gathered therein is not to search for or establish "truth" but instead to examine regularities and features of accounts and to establish the plausibility of the researcher's account of the jointly constructed dialogue between the researcher and the interviewee, a form of co-construction of knowledge (May, 2001; Rapley, 2004; Roulston, 2010).

In order to support the gathering of quality data via these semi-structured interviews both structural and practical measures were taken. First, the interviewee sample and interview schedule were designed to inform the research questions and reflect a congruency between design, proposed analysis, interpretation, and that was consistent with the theoretical underpinnings of the study (Roulston, 2010). Second, an attempt was made to ask interview questions in a way that produced shared understandings. Key to achieving this was attempting to establish a rapport with the interviewee through careful consideration of appearance and approach as well as establishing practical, ethical, and theoretical expectations and context for the interviewee (May, 2001; Robson, 2005), having the questions prepared and practiced in advance of the interview, and listening without prejudice or interruption (Kvale, 2009; Riley, 2010). Third, the interviews were audio recorded for translation and transcription purposes, and interview notes were taken by the researcher. At the start of each interview permission to record the interview was asked of and agreed to by each interviewee and reminders of confidentiality and anonymity were given as per ethical interview guidelines (Rapley, 2004).

Although measures, both theoretical and practical, were taken to support the gathering of quality data, the researcher must always be aware that an interview is not a pipeline of knowledge or truth. Interviews and interview practices must always take into account that there are persistent and difficult issues around bias, error, misunderstanding, and misdirection that must always be acknowledged, and attempts must consistently be made to reduce or address these problems (Holstein & Gubrium, 1995). Perhaps the most fundamental issue with the interview is as Kvale (2006) states, "the qualitative research interview entails a hierarchical relationship with an asymmetrical power distribution of interviewer and interviewee. It is a one-way dialogue, an instrumental and indirect conversation where the interviewer upholds a monopoly of interpretation" (p.484). Each interview, therefore, must take these ethical and practical considerations into account and the researcher must both acknowledge the fundamentally difficult nature of this data collection method and, at the same time, make every attempt to collect quality data through the interview practice.

The interviews of this study were conducted over the course of 5 weeks (July-August 2015), and 16 interviewees from Paraiba participated in 9 separate interviews over the course of this time period. The interview schedule was piloted in the first interview but as the data gathered was of sufficient quality and, upon review and reflection of the pilot interview, the only adjustment made was to shorten the schedule, the data from the pilot interview was retained. The analysis and reflection of the pilot interview can be found in Appendix VII. The researcher undertook a random purposive sampling strategy (Breakwell, Hammond, Fife-Shaw, & Smith, 2006) in an attempt to acquire a sample that could reflect variation in the geographic, economic, and rural-urban spectrum of Paraiba.

3.7.2 *Interview Sample*

The population, from which the sample is taken, is grade 5 and grade 9 teachers of Portuguese and mathematics teaching in public schools in Paraiba, Brazil. A purposive sampling strategy was used by the researcher to select 16 interviewees in 9 schools of varied geographic, economic, and rural-urban characteristics. There were some elements of randomness in the sample. While the geographic location, socio-economic-conditions, and rural-urban nature of the sites were chosen purposefully by the researcher, the school sites within the targeted areas were

chosen randomly. The choice was made according to perceived safety, and if the school was open or not. Due to the difficulties in achieving contact with schools prior to the field work, the researcher approached schools without prior contact. The twin one-year old children of the researcher played a part in negotiating access, often entering the school with the school children before the researcher had the chance to finalize arrangements with principals at the sites. Both the researcher and her children we usually toured through the school, and the principals often took care of the children while the interviews took place.

Teachers within the schools who met the criteria to be interviewed (i.e. taught Prova Brasil subjects and grades and who had enough relevant experience in the school system) and who were available during the researcher's visit, were asked for an interview. All teachers that the researcher approached volunteered to be interviewed. It is acknowledged by the researcher that this purposive sample cannot be representative of the population but the diversity of the sample supports the credibility of the study when drawing conclusions about educational policy and progression in Paraiba, Brazil as they relate to the research aims of this study (Miles & Huberman, 1994; Punch, 2009).

Table 3.6 illustrates the sample characteristics of this study. In total there were 16 interviewees located in 9 schools. Four of these schools were located in the urban center of Joao Pessoa, which is also the state capital of Paraiba. The remaining five schools were located in rural areas in various directions and varying distances from Joao Pessoa. The majority of the schools visited were located in disadvantaged areas, although no schools in or directly surrounding slum areas were visited in the interests of the safety of the researcher. Three schools visited were located in middle class neighbourhoods, and none were located in upper class neighbourhoods. Upper class neighbourhoods were usually located in gated communities and had no public schools. Further, children who lived in those neighbourhoods were likely to attend private schools and therefore not attend any public school in the area surrounding their home. The larger number of schools surveyed in lower class neighbourhoods is reflective of the general socioeconomic status of the state of Paraiba.

Of the 16 interviewees, six were male and ten were female. Eight of the teachers interviewed teach either grade 5 or grade 9 Portuguese, four teachers teach either grade 5 or grade 9 mathematics, one teacher teaches grade 5 science (which is a subject tested by Prova Brasil in 2015), and three teachers said they teach both Portuguese and mathematics. Seven of the teachers interviewed had been teaching between 6 and 10 years, four teachers had been teaching between 16 and 20 years, and five teachers had been teaching for more than 21 years. Teachers who had been teaching for less than five years were not interviewed as they would not have been as able to speak to the effects of Brazilian educational policies over time in schools. No interviewees had between 11 and 15 years experience teaching. Although a sample size of 16 cannot be representative of a population, an attempt was made by the researcher to interview teachers who are knowledgeable about how Brazilian educational policies may have affected schools over time, especially with regards to changes in Prova Brasil scores.

Table 3.6 Interview Sample Characteristics

Gender		Subject		Years of Experience					School Setting		Neighbourhood (Econ)		
M	**F**	**Port**	**Math**	**0-5**	**6-10**	**11-15**	**16-20**	**21+**	**Rur.**	**Urb.**	**Low**	**Mid**	**Hi**
6	10	11*	8*	0**	7	0	4	5	5	4	6	3	0***

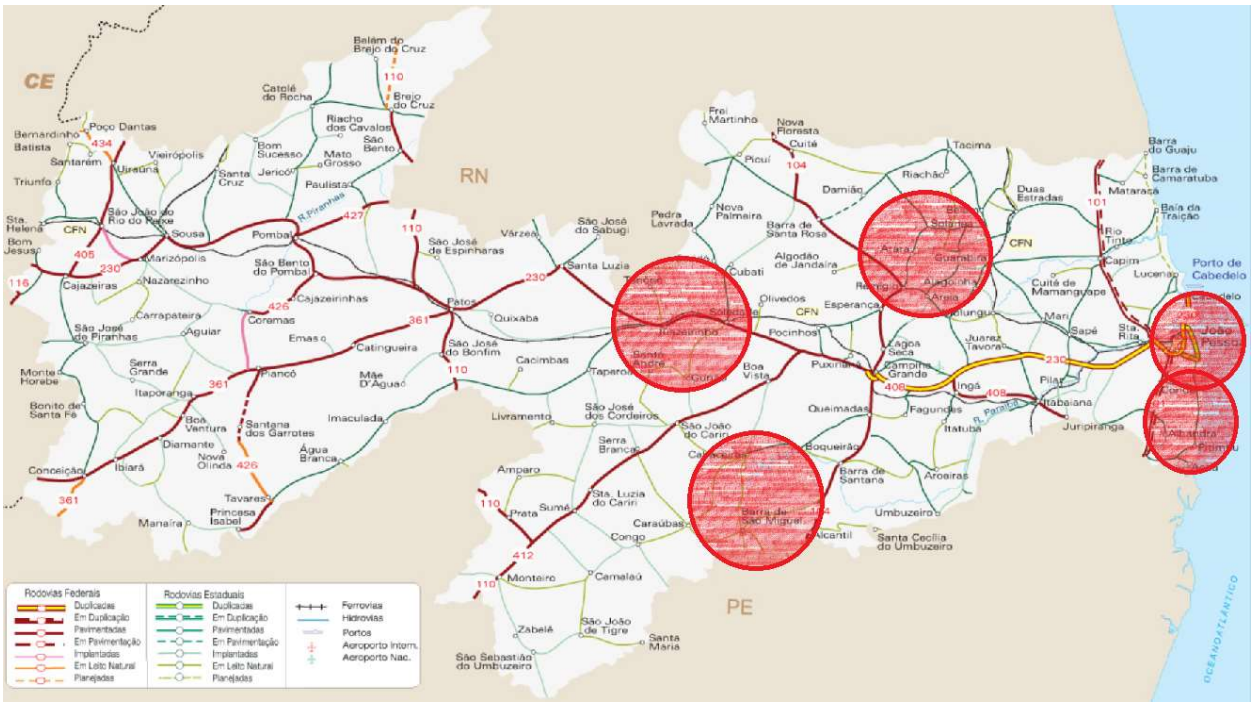
***Note:** Of the 16 interviewees, 3 of them indicated that they taught both Portuguese and math.
****Note:** Teachers with 0-5 years of experience were not considered good candidates for interviews as they had not been teaching long enough to witness the effects of Brazilian policy changes.
*****Note:** There are very few pubic schools in upper class neighbourhoods. Children from upper class families would attend private schools. Most neighbourhoods in this state are disadvantaged and therefore most schools are located in lower class neighbourhoods.

Figure 3.1 demonstrates the geographic characteristics of the sample. On a map of the state of Paraiba, an approximate area of the research sites indicates the geographical spread of the sample including distance from urban centers and distance from each other. It is important to note that the areas indicated on the map are large and approximate in order to protect the anonymity of the sources. Four of the sample sites were located in the major urban center and capital city of Joao Pessoa. Five sites were located in other rural locations in the state. A limitation of the sample is its confinement to the western half of the state. At the time of the fieldwork the zika virus and malaria virus were present in the eastern most parts of the state and there was a higher risk of

becoming infected due to the more rural nature of these areas. The eastern half of the state was therefore deemed "high risk" by the researcher and was avoided.

Due to the large geographic distance between the researcher's home and the fieldwork, the limited time frame of the fieldwork, and the linguistic and cultural challenges faced by the researcher in this undertaking, great care was taken to develop a purposive sample that adequately addressed the research questions posed by this study. The sample was, however, limited by dangers in the field. Viral infection dangers led the researcher to avoid the eastern parts of the state of Paraiba to lessen this risk. This decision did limit the sample to the western half of the state. Further, due to the dangers associated with a foreigner entering particular neighbourhoods, some schools in Joao Pessoa had to be avoided by the researcher. These decisions, while in the best interests of the safety of the researcher, acted to reduce the representativeness of the interview sample. It is possible that the worst school conditions in Paraiba were not observed by the researcher as these under-developed and/or impoverished areas had to be avoided.

Figure 3.1 Map of Paraiba Sample



At the time of the interviews, observational notes were taken by the researcher. These notes can be used to support both comparisons and contrasts between the research sites. Full site observational notes can be found in Appendix VIII. A summary of sample site notes is found in Table 3.7.

Table 3.7 Sample Site Summary of Observational Notes

Locations	Notes Summary
Site 1	This is not a school setting; it is the Paraiba teachers' union building. This interviewee works at the same school as tomorrow's interviews.
Site 2	The school is large, appears to be in reasonable shape, and is located in downtown Joao Pessoa (JP). There is an armed guard wearing a bullet proof vest inside the door, and the doors into the school and inside of the school are locked. The locks keep students in certain areas at certain times, and presumably to stop some people from getting in. The teachers speak about drug use and violence in the school. Teachers indicate that many students bus from the suburbs to come to this school because schools in the suburbs can be (more) dangerous, and the infrastructure, resources, and number of qualified teachers are limited.
Site 3	This school is in a suburban neighbourhood in JP that appears to be about middle-class. It's a much smaller school than the downtown school. It appears well kept, there is security at the gate and in the school itself but they are not armed or wearing bulletproof vests. Areas of the school continue to lock students in and out at particular times. A glance around the side of the building reveals some infrastructure decay, but the front of the school itself is tidy, and welcoming. Although the interviewees called the school big, it is probably closer to medium sized. The teacher's room has a hastily repaired leak in the ceiling, but it's noted that it's a cement ceiling, not just roofing tiles on top of wood framing. The lawn outside has some space for the kids to play and is well cared for.
Site 4	This is a rural school outside JP and the drive took about 3.5 hours. The roads in the area are reasonably well maintained, but it is very far from any of the 3 major cities of Paraiba. There is a security guard at the gate but he is not armed and does not wear a vest, but students are still locked in and locked out at different times. There are towns of varying sizes on the way and the stretches without any human habitation are small. There are usually very small houses indicating areas of abject poverty – probably the farm workers in this largely agricultural area. The town appears to be quite poor. The school, and all of the other major business, are located on the main road (highway) through the town. The school appears really small, but when I go in, it has obviously been added to. Infrastructure is basic.
Site 5	This city is considerably larger than Site 4's city and is located on a major route between two of the three major cities in Paraiba (Campinha Grande and Patos). The school is quite large and is used all day (3 school sessions per day) and therefore has over 1500 students in total. The school is guarded but the guard is not armed. The students are locked in and out at different times. The principal shows me that she has just finished building a special education lab, a dentist's office (services provided for free to students), a computer lab (climate controlled), an extended and recently roofed cafeteria area, and she shows me where she is going to build a bigger teachers room. The Special Ed room is equipped with wheelchair assessable desks, specialized computer hardware for the blind and deaf, and a lot of tactile and physical aids. The whole school is becoming wheelchair accessible.
Site 6	This is one of only 2 schools in a large geographic area. There is a very small population in the area, it is very rural, and most students are bussed in. This school was chosen because it is very far from a major urban center - it is extremely remote, rural, and isolated. The drive is about 3 hours from Joao Pessoa. After turning off at Campina Grande, the roads become very small and there is only 1 town we drive through and it is within 10 minutes of Campina Grande. The rest are tiny, tiny settlements. For a significant portion of the drive, no human habitation is present. Just fields and open, undeveloped space. The road ends and 20 kms of the road towards the town is dirt road. The town is very small (about 5000 inhabitants), but is clean and safe. There is a guard at the door but he is not armed and is not wearing a vest. The school is recently painted. The grounds are clean, well spaced, and it appears to have everything. It is the first school with a playground area, and it has open space. The

	Principal used to attend this school when he was young and it used to only have 2 classrooms. It's changed dramatically in the last 5 or 6 years. Interesting because the reforms began over 10 years ago. Maybe the remoteness of an area made the changes come more recently, but at the same time, the resources have come with vigour. This school has everything. The principal said that education in the area used to have the "at home" model (i.e. a woman giving classes out of her home as described by Harbison and Hanushek) but that doesn't exist any more.
Site 7	This is a small fishing and agricultural village only about an hour south of Joao Pessoa. I chose it because of it;s rural nature but also proximity to the capital. Is proximity to the capital a factor in school infrastructure and resource adequacy? The school is small and appears unkempt. It has a total of 5 classrooms and the teachers' area is tiny. The school is untidy. There are pieces of construction everywhere, just sitting around and rusting. There is a tonne of unused space within the walls but it's uneven grass and rock, not suitable for kids to play on. The corridors are cramped, the classrooms are tiny. Windows are broken, the Principal shows me where the roof caved in on 2 classrooms last time it rained. She's had patchwork fixes made. The security guard is female and she has no vest and was a volunteer. The Principal tells me there is no security at night which is why so many of the renovations are patchy and rushed – there is a drug den right beside the school and so she needs all the fixes done in one day or she fears that the drug dealers and their friends will come in at night and steal their technology. She talks about how poor the students in the area are, their families are fishermen usually, and education just doesn't appear to be important to them; the horrific infrastructure, resources, and lack of teachers for some subjects doesn't do much to change their opinions about the value of education or inspire them. These are the worst conditions I've seen so far.
Site 8	This is one of the schools that we saw on the side of the highway but weren't able to get into before. There are only 3 classrooms and one is new. The roof has holes in it, it has no windows, it has only a small chalkboard per classroom and the classrooms are dark. The classroom is tiny. It has been recently painted. The kids are so poor some don't have shoes. The teacher said the lunch here is horrible. She says the kids in Pitimbu have much nicer schools and are much richer – this was not my experience but it is noted that this may be the poorest of all the schools I have visited and is absolutely the worst one. Prova Brasil is not administered in schools smaller than this – so perhaps if the smallest schools are the worst, then the worst of the schools are not being monitored by Prova Brasil. So there is likely a part of this education system that is very much failing and is not being picked up on the charts. There is no support here either – no Special Ed or social worker etc. The teacher motions to several students who don't eat for long periods of time because their parents are too poor. On school days the lunch here may be all the food they get in a day. I think the teacher I interviewed was one of the old generation teachers who has no qualifications - she mentions taking a 1 month pedagogical class to qualify to be a teacher. So the qualifications of teachers here are very limited. The school has 2 computers and she says they are both broken and have no access to internet. There is no gated area that is safe for the kids to play in so the teacher says they have to put the kids outside (near the road) to play. There isn't anything to play with. They keep the smaller kids inside when they can. No recreational area, no library, no functional computers, no photocopier, no printer, no screens, no tvs, no whiteboards. Nothing. The teacher says that there aren't enough books for the students. If there is a class of 18, only 15 books come.
Site 9	This school is at the very tail end of a wealthy, beach front community. The school's catchment area also includes nearby favela (slum) so the school population is quite mixed with upper middle class to extremely poor. The school itself is what I could now term "average". There have been clear additions to the infrastructure but they are small, a bit haphazard, and in some areas, have failed completely. For example, there are parts of the roof that have holes in them. It's a rainy day so perhaps I'm noticing more than I would on a sunny day. The computer lab is tiny and I don't see anyone going in or out in the hour I wait for the interview to start.

Although the interview sample cannot be representative of the population due to its limited size, it does represent a variety of socio-economic contexts, geographic locations, and educational policy implementation and progress levels. A wide variety of teachers (i.e. gender and subjects taught) with varying levels of experience were approached for interviews, and these teachers were well qualified to respond to the researcher's questions.

3.7.3 *Interview Schedule*

An interview schedule conceptualization has been outlined in section 2.6.3 of this report (see Figure 2.5). The interview schedule is designed to collect background information of the teachers interviewed, details regarding the administration and context of the Prova Brasil assessment system, and detailed information on the perspectives and experiences of teachers regarding education policy implementation and effects on schools, the researcher's preliminary Phase I results, and desired future school resource and teacher qualification supports. Table 3.8 outlines the scope and sequence of the interview schedule with reference to the literature and to the DASI model. The full interview schedule in Portuguese and in English can be found in Appendix IX.

Table 3.8 Phase II Interview Schedule

Sequence	Scope	DASI	Interview Questions	Sources
Teacher Background	Teacher Education History Teacher Years of Experience Grade(s) Taught: Gr 4 and/or 8 Subject (s) Taught: Portuguese and/or Mathematics	n/a	How long have you been teaching in public schools? What grade(s) do you teach? What subjects do you teach? What are your educational background and qualifications?	(Bogdan & Biklen, 2007a; May, 2001)
Prova Brasil Administration	Administration Details: Details related to who and how the test are administered Response Details: Details on student and school attitudes towards test administration as well as details of non-response and missing data	n/a	Does your school(s) participate in Prova Brasil? Can you tell me a little bit about how Prova Brasil is administered in the school? How do students feel about Prova Brasil? How seriously do they take the test? Prova Brasil appears to be administered in most schools in Brazil but there are still a lot of students who do not take the test, why do you think that is? Which students are not taking the test? How do teachers feel about the test? How seriously do they take it? I've noticed that teacher response rates on Prova Brazil between 2007 and 2013 have decreased significantly (fewer teachers are answering the survey questions), why do you think that has happened? Do you answer the survey questions? Why or why not?	(Bogdan & Biklen, 2007a; May, 2001)
Context	Politics and Policies: what is the test for and how it is used? Capture: Ability to capture conditions in schools and students' educational progression	n/a	What is its purpose? How are the results of Prova Brasil used and publicized? What do you think about how the results are used and publicized? Do you think that Prova Brasil is able to show the conditions of schools accurately? Why or why not? Do you think that the results of Prova Brasil show how students in Brazil are doing in school?	(Bogdan & Biklen, 2007a; Kvale, 2009; May, 2001)
School Resources	Policies: Views of general school resource policies, implementation processes, changes over time	**Stage:** Views of general school resource policies, implementation	Have you seen changes in the amount and quality of school resources between 2007 and now? What changes have you seen? Have you noticed any changes in these resources from 2007 to now?	(Barbosa et al., 2001; Biondi & de Felício, 2007; Espósito et al., 2000; Franco et al., 2007; Gaviria

	Practice: Views of specific effective resources in practice, and changes to these resources over time Review: Review of Phase I results - comments, thoughts, reactions to school resources that appear effective in MLMs Future: School resource supports valued moving forward	processes, changes over time **Focus, Quality, Differentiation:** Views of specific effective resources in practice, and changes to these resources over time	Statistical analyses suggest that technological resources like the internet and computers are most important in Brazilian schools, what do you think of these results?	et al., 2004; Harbison & Hanushek, 1992; Murillo, 2007; Murillo & Román, 2011; OECD, 2010b; J. Soares et al., 2001; Velez et al., 1994; Willms & Somer, 2010)
Teacher Qualification	Policies: Views of general Teacher Qualification policies, implementation processes, and changes over time Practice: Views of specific Teacher Qualification resources and programs, and the changes it has made in the classroom and to the profession over time Review: Review of Phase I results - comments, thoughts, reactions to school resources that appear effective in MLMs Future: Teacher Qualification supports valued moving forward	**Stage:** Views of general Teacher Qualification policies, implementation processes, and changes over time **Focus, Quality, Differentiation:** Views of specific Teacher Qualification resources and programs, and the changes it has made in the classroom and to the profession over time	Have you seen any changes the qualifications required to be a teacher since 2007? Do you think the teacher education programs are useful? Are they improving? Are teachers becoming more qualified? What teacher education and professional development activities do you think are most useful to improving teaching?	(Clotfelter et al., 2007; Darling-Hammond, 2000; Darling-Hammond et al., 2001; Willms & Somer, 2010; Wilson et al., 2001)

3.8 *Analytical Strategy*

Of central concern in the analysis of qualitative data is the organization and transformation of data in a way that both facilitates its coding and categorization into broader patterns and, at the same time, unearths its intricacies (L. Cohen et al., 2011; Punch, 2009). In addition to these considerations, from a methodological perspective, rigour and credibility are sought after through transparency in the coding and analysis process in order for the reader to understand how and why the researcher has drawn their conclusions from the data (Punch, 2009). To facilitate this transparency and organization, coding structures in this research project were guided by the research questions and their underlying theoretical structures (Coffey & Atkinson, 1996; L. Cohen et al., 2011; Punch, 2009). In addition, the peer debriefing process in the field supported the researcher's efforts to conceptualize coding categories early on so that patterns became more visible early into the coding process (Miles & Huberman, 1994). It was also assumed that these categories will be renegotiated subtly as the process unfolds (Miles & Huberman, 1994). This kind of data organization supports the systematization of the data so that patterns and relationships become easier to identify and explain, but also offered the researcher some flexibility to watch codes emerge from the data where relevant (Coffey & Atkinson, 1996; L. Cohen et al., 2011).

The steps taken in the analysis of the data in this research project were as follows: a) translation and transcription b) back-translation for reliability and validity check c) summarizing and code book draft d) coding e) re-coding by a second researcher to establish greater reliability and validity of codes f) searching for themes/patterns/clusters in the codes g) conceptualizing and explaining using examples from the data and h) data display (Coffey & Atkinson, 1996; Miles & Huberman, 1994; Punch, 2009). The translation and transcriptions of the interviews began during the fieldwork timeframe. After each day in the field the researcher used peer debriefing to decompress and begin to review and organize the information gathered that day. Reflection on how the researcher conducted the interview was the first point of discussion, and techniques to continue to minimize researcher talk and maximize interviewee response were considered. Clarity in pronunciation and word choice was also discussed and alternative wording was considered. Further, the points of interest, information learned, and observations were reviewed with the peer researcher each day. After the peer debriefing, observational notes were expanded

and translation and preliminary transcription began. Although not all interviews were transcribed and translated in full during the fieldwork time frame, all interviews were at least partially completed in order to improve each interview and begin the analysis process in the mind of the researcher as patterns and consistencies in the data emerged. It also encouraged the researcher to pursue lines of questioning that enriched the data around the primary lines of inquiry through additional relevant prompts as contextual information, anecdotes, and observations could be shared with later interviewees. These reflexive processes are recommended by Miles & Huberman (1994) in order to 'fix blind spots' during fieldwork, and reduce the overwhelming workload that post fieldwork transcription and translation can often entail. To foster reliability and validity in the transcribed data, 10% of the 85 pages of transcriptions were back-translated by an independent third party. The interview tapes were reviewed and discrepancies between the interview tape and the back translation were highlighted in NVivo Version 11. These discrepancies were reviewed by the researcher to determine if the meaning had been either a) misconstrued, b) partially misconstrued, or c) not misconstrued. The extent to which the researcher's translation was reflective of the interview recordings is recorded and illustrated in Chapter 5. The back-translation and associated coding can be found in Appendix X.

The next steps were the summarization, organization, code book development, and coding of the data. The researcher used the research questions, which were driven by the underlying theory of DASI, to organize the data and begin coding. Some preliminary and draft coding was done in order to begin a code book. This entailed noticing relevant phenomenon which addressed the research questions of this study, and collecting examples of this supporting data. Once the draft code book was created, coding began. Indicators in the data were organized and tagged according to the codes, and codes, in turn, were further defined and refined. After the researcher had completed the data coding, 10% of the transcriptions were given to an impartial second researcher. This researcher reviewed the research questions, underlying theory of the research, and the code book with the researcher. The second researcher then re-coded one full interview chosen at random. The discrepancies between the researcher's coding and the second researcher's re-coding was reviewed, analyzed, and the data is presented in Chapter 5 of this report. The re-coded transcriptions can be found in Appendix XI, and the Code Book can be

found in Table 5.1. The re-coding process is designed to support the reliability and validity of the research study (Miles & Huberman, 1994).

The final step of data analysis was to review the codes and begin organizing the data in a way that best answers the research questions of this study. Consistent and relevant phenomenon were observed, examples of these phenomenon were recorded, and this data is displayed in Chapter 5. Further analysis was conducted by the researcher to draw conclusions with the data and these results are presented in Chapter 5.

3.9 *Points of Intersection*

In a sequential integrated mixed methods approach to research the mixing of data collection, analysis, and interpretation takes place throughout the inquiry (Jang et al., 2008). In this study, the mixing took place at the development of research questions, the development of the qualitative instrument, the finalization of the qualitative models, and at the interpretation of findings. This section reflects the points at which the quantitative research and the qualitative research mixed or interacted during the research process. The development of the research questions of this study reflect the pragmatic philosophical and DASI theoretical structure of the investigation. The research questions were formulated to illustrate how the five dimensions of the DASI model (*frequency*, *focus*, *stage*, *quality*, *differentiation*) could be used to examine the effects of school resource and teacher qualification on students' outcomes through a mixed methods study. Previous work of the researcher in this area using the Prova Brasil data sets, including Master of Science research (Paget, 2013) and published work (Paget, Malmberg, & Martelli, 2016), and a revision of the data and those models provided the preliminary quantitative findings that informed the development of the qualitative interview schedule for this study. The results of these previous studies allowed the researcher to ask, during the Phase II interviews in July-August 2015, about the experiences of teachers with infrastructure and computer and technology resources, which the preliminary models had indicated were significant predictors of achievement.

After Phase II interviews were completed, the researcher revised the multilevel models based on the findings of these interviews. The first modification was to the infrastructure predictor.

Windows, roofs, floors, electricity and water were the primary observations of the researcher that distinguished the infrastructure of one school from another and were also available on the Prova Brasil surveys. It was assumed that good windows, for example, did not lead to gains in student achievement, but when these infrastructure variables were added together, they did distinguish the infrastructure conditions of one school from another. For example, Site 2 was quite different in terms of infrastructure from Sites 7 and 8, and the conditions of the windows, floors, roof, and electricity were major distinguishing factors observed by the researcher.

In the interviews with teachers, and in the observations of the researcher, the presence of textbooks to support learning in the classroom was an important school based resource that had changed over the over time points of interest to this study. Teachers made specific mention in their interviews about the importance of textbooks to their classroom, and the dramatic change in their availability and quality since 2007. The observations of the researcher support the presence of textbooks in most schools as stacks of textbooks were observed in many of the interview settings. For these reasons, the availability of textbooks was included in the final multilevel models of this study.

After reviewing the interviews conducted with teachers carefully, a considerable departure from the preliminary models was made as regards teacher supports. Using the interview data and observations from the field, a teacher support index was created using four of the most valued teacher support resources mentioned by teachers that also appeared in the Prova Brasil survey data. Photocopiers, libraries, and teacher access to working computers with internet were chosen to represent resource levels in schools that were perceived by teachers to make a difference in teaching and learning in the classrooms, that had been recent additions to schools as a result of policy changes and funding levels in schools, and were available variables on the Prova Brasil surveys.

Due to the difficulties in the teacher education data, a very simple measure of teacher qualification was chosen to represent this concept – teacher education levels. One of the changes to the preliminary models that was made in the final models was the addition of a third level, the school district level. This modification was made as result of both the observations of the

researcher regarding the discrepancies in resource levels between schools, and from the comments of teachers that indicated that these discrepancies were widespread and were probably the result of differences in the management of funds from the federal government by local government bodies.

3.10 *Ethical Considerations*

Particularly when using interviews, and the experiences of interviewees to address research questions, respect for people and their autonomy is crucial to an ethical study. The first concern is beneficence and non-maleficence; the parameters of the research and the research questions themselves should be designed to maximize benefits to the research community and the community that is the subject of the research, and harm should be addressed and eliminated where possible (M. Smith, 2000). Further, participants should be safeguarded against exploitation which can include misrepresentation of the intentions and experiences of the interviewee, a lack of acknowledgement of the power discrepancy between the researcher and the interviewee, a lack of access to adequate mechanisms to address possible concerns about the research, and confidentiality (M. Smith, 2000). Kvale (2006) suggests that one way of the ways to address concerns related to ethical interviews in the field is to begin interviews by articulating the context of the study (i.e. research topic, funding bodies, motivation, necessity of participants, risks and benefits for participants, data use and storage, anonymity, and ability to withdraw from the study) and ending the interview with a debriefing or verifying participant meaning during the interview.

The Prova Brasil data used in Phase I of the study is collected by contractors employed by the Ministry of Education and individual student data is annonymous. The data sets are published for public use on Brazil's Ministry of Education INEP website (Instituto Nacional de Estudos e Pesquisas Educacionais, 2012) and no permissions are required. Nonetheless, I have been in contact with the assessment arm of Brazil's Ministry of Education (INEP) to inform them of my study, and I have established a positive working relationship with two of the professionals responsible for the management of Prova Brasil data.

Data from both Phase I and Phase II of this study is stored on my password protected personal laptop with one safety copy being stored on an encrypted external hard drive located in my home. There were no other copies of the data made, and the researcher will destroy the data five years after the publication of this thesis. The ethical considerations of the study are addressed, in detail, on the approved Central University Research Ethics Committee (CUREC) form found in Appendix XIII. Example copies of the consent form signed by participants in both English and Portuguese are included in Appendix XIV.

Chapter 4: Phase I Quantitative Findings

Chapters 1 and 2 articulated the philosophical, theoretical, and conceptual development of this study. Chapter 3 was then dedicated to the methodology and methods used by this study to answer its questions. Phase I of this research uses a quantitative methodology to examine the *frequency* of school resources and teacher qualification and their effects on students' Portuguese and mathematics outcomes in schools. Section 4.1 outlines the descriptive statistics for the predictors and outcomes of these statistical analyses in the Prova Brasil data sets in 2007, 2009, 2011, and 2013. Section 4.2 displays the results of the multilevel models built to answer the questions of this study. The findings of both the quantitative and qualitative phases of this study will be discussed together in Chapter 6: Discussion.

The aim of this study is to examine the effects of Brazilian educational policies that have increased funding for school resources and teacher qualification on students' Portuguese and mathematics achievement and how these policies have impacted the educational experiences provided by schools from the perspectives of teachers teaching in Paraiba. The central research question that guides this study is: How have recent Brazilian educational policies related to increased resources and teacher qualification (i.e. FUNDEF, FUNDEB and the National Policy on Teacher Education) affected schools and students' educational outcomes in Paraiba, Brazil? The focus of Phase I of this study is to examine the *frequency* of these resources in schools and the extent to which they may predict students' Portuguese and mathematics outcomes as measured by Prova Brasil. The expectation of Phase I of this study is to directly address the central research question of this study by examining the relationships between resources in schools and students' Portuguese and mathematics outcomes. These results can then be later viewed along side the results of Phase II of this study in order to bring clarity, nuance, and detail to the findings of this study and better answer its questions.

4.1 Descriptive Analyses of the Predictors and Outcomes in the Prova Brasil Data Sets

The purpose of this section is the examine, descriptively, the predictors and outcome measures of the Prova Brasil data sets. Specifically, the descriptive analyses of the outcome data - the student achievement on grade 4/5 and 8/9 Portuguese and mathematics assessments – will be examined

for general patterns and trends over the four time points of interest in this study. The stability of student socio-economic background characteristics will then be examined in the same manner. Finally, the general school resource and teacher qualification trends will be examined over the four time points of this study. Descriptive statistics for the predictor and outcome variables are displayed. Additional descriptive statistics for predictor and outcome measures can be found in Appendices III, IV, and VII.

4.1.1 *Descriptive Analyses of the Patterns of Portuguese and Mathematics Assessment Achievement by Paraibano Students*

In general, scores on the Prova Brasil assessments between 2007 and 2011 have improved, with the exception of grade 8/9 Portuguese which increased between 2007 and 2009, dipped slightly in 2011 and then improved again in 2013 by a slight measure. Interestingly, with the exception just mentioned, score in Portuguese and mathematics in grades 4/5 and 8/9 decreased from 2011 and 2013. If, however, the mean scores of 2007 and 2013 are examined, all scores in all grades have improved. The practical skills associated with these scores can be viewed by referencing Tables 3.2 and 3.3 in the previous chapter. Table 4.1 displays the sample sizes, means, and standard deviations of the Prova Brasil scores by subject, by grade, and by year. Again, an improvement in mean scores in both grades and subjects between 2007 and 2013 is apparently although slight.

Table 4.1 Portuguese and Mathematics Outcomes of Grade 4/5 and 8/9 students in 2007, 2009, 2011, and 2013 in Paraiba

Prova Brasil Tests

YEAR	PORTUGUESE			MATHEMATICS		
	n	**Mean**	**(SD)**	**n**	**Mean**	**(SD)**
2007						
Grade 4	38,035	160.93	37.06	38,035	178.12	38.80
Grade 8	31,440	216.87	41.64	31,440	226.61	39.69
2009						
Grade 5	37,612	167.53	37.39	37,600	185.42	39.39
Grade 9	34,383	225.00	43.60	34,369	227.84	40.04
2011						
Grade 5	35,638	174.24	39.84	35,638	188.85	39.66
Grade 9	33,040	223.82	43.73	33,040	229.89	43.33
2013						
Grade 5	37,097	174.58	43.20	37,097	188.74	45.57
Grade 9	33,876	226.40	43.39	33,876	230.34	43.52

4.1.2 *Descriptive Analysis of Student Socio-economic Background Characteristics*

This section displays the patterns of socio-economic background characteristics of students in Paraiba over the four time points of this study. The purpose of these descriptive statistics is to examine the stability of the Paraibano population's socio-economic characteristics over time.

Socio-economic characteristics have been strongly linked to educational achievement in Brazil (Arias et al., 2002, 2004; D. Fernandes, 2005; Harbison & Hanushek, 1992; Hasenbalg & Valle Silva, 1990; Souza & Valle Silva, 1994) and, therefore, if students' socio-economic characteristics remain relatively constant over time then it is more likely that changes in Portuguese and mathematics achievement on the Prova Brasil assessment could be attributed to educational influences including the policy changes in school resources and teacher qualification in schools. Multilevel models are more able to accurately predict the effects of socio-economic background characteristics on Portuguese and mathematics outcomes, therefore, the purpose of these tables is only to examine these characteristics descriptively and establish a context for the forthcoming multilevel models.

Figure 4.1 illustrates that between 2007 and 2013, household wealth as measured by the presence of a washing machine, car, and computer has improved very slightly. The crowdedness of students' homes has also improved very slightly over this time period although in 2009 and 2011 homes became temporarily less crowded before returning in 2013 to the same levels as in 2007. The most obvious change in students' socio-economic background is the education levels of both of their parents which is obviously and considerably improving.

Figure 4.1: Mean Grade 4/5 Student Socio-Economic Background Characteristics in 2007, 2009, 2011, 2013

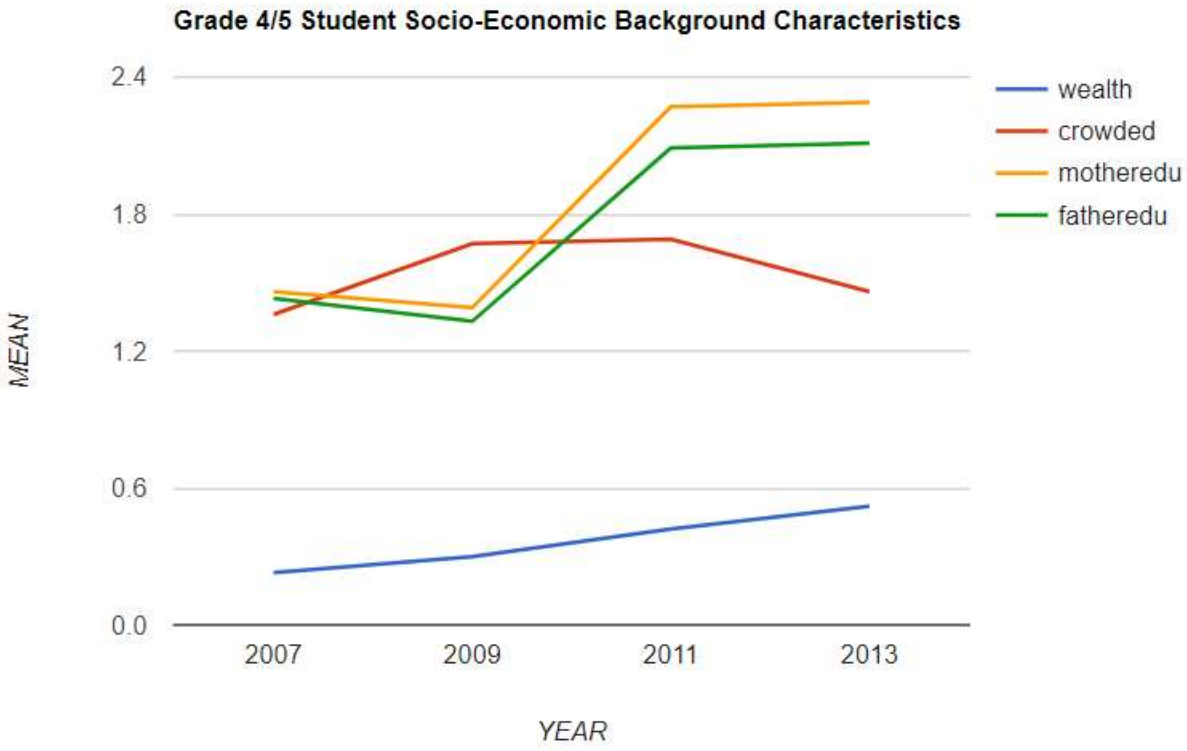
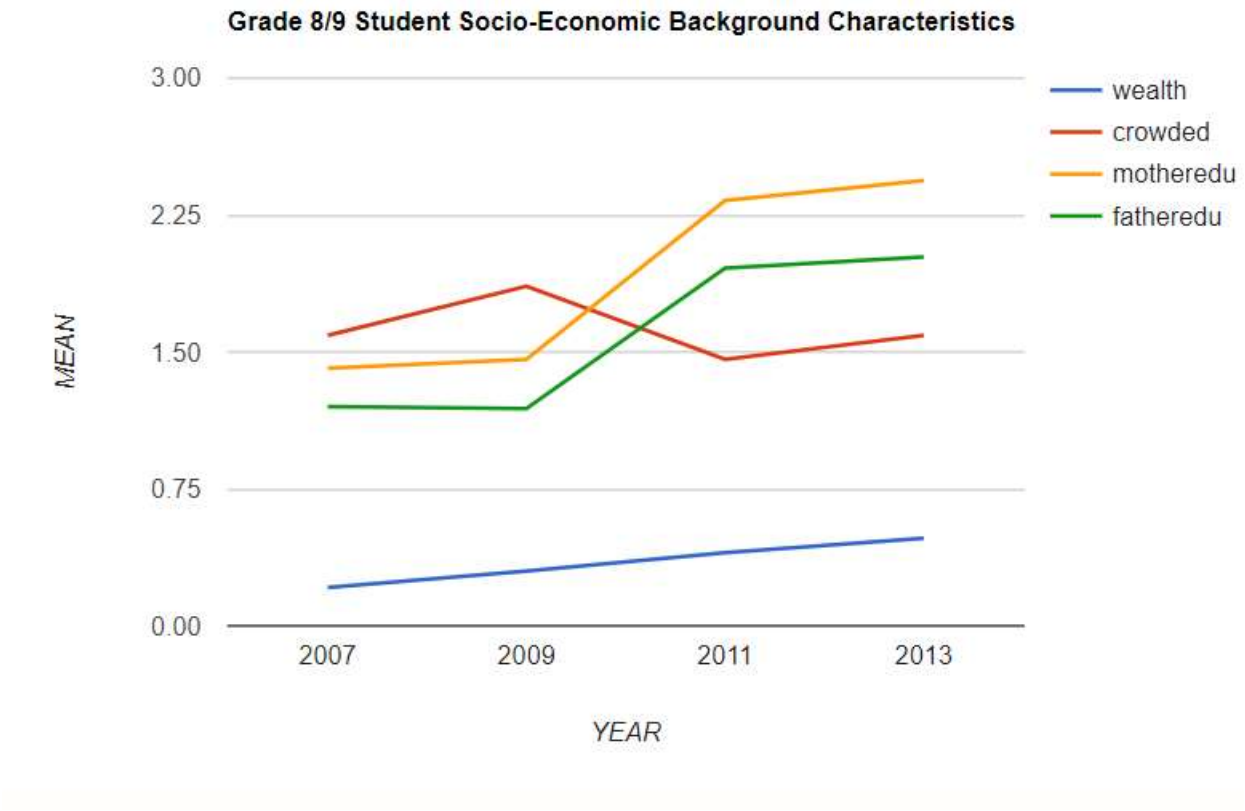


Figure 4.2 displays similar trends to the grade 4/5 graph, with wealth making a very slight but steady improvement, and the crowdedness of homes taking a circuitous route to roughly the same level in 2013 as in 2007. This graph also demonstrates a considerable improvement in the education levels of students' parents. In Table 4.2 detailed information is given on these socio-economic background variables including sample sizes, the means of each variable, and their standard deviations by grade and by year. Of note, the 2013 sample sizes are much lower than in previous years. There were more total nonresponses and item nonresponses in this year than in the other years. The reason for the missing data is not known.

Figure 4.2: Mean Grade 8/9 Student Socio-Economic Background Characteristics in 2007, 2009, 2011, 2013



In Table 4.2 we see that wealth increased from the 0.20 level to about the 0.50 level which means that most students' families did not own a car, computer, or washing machine in 2007. By 2013, most students' families owned one or two of these items. The crowdedness of students' homes fluctuated but most homes probably had at least one bathroom and two bedrooms for a family of three or four. Mothers' education improved from about a grade 4 level to an average of almost middle school graduation (grade 8/9 graduation) during this period. It is noted by the researcher that most schools visited in Phase II of the study had adult education programs that principals characterized as being well attended. This may explain the general rise in the reported education level of mothers and fathers. The average education of students' fathers increased to above a grade 4 level although did not come as close to achieving a grade 8 average as was the case with students' mothers.

Table 4.2: Socio-Economic Background Characteristics of Grade 4/5 and 8/9 students in 2007, 2009, 2011, and 2013 in Paraiba

YEAR	WEALTH			CROWDED			MOTHER EDU			FATHER EDU		
	n	Mean	(SD)	n	Mean	(SD)	n	Mean	(SD)	n	Mean	(SD)
2007												
Grade 4	37,812	0.23	0.37	37,812	1.36	0.77	25,558	1.46	1.23	20540	1.43	1.32
Grade 8	31,345	0.21	0.35	31,345	1.59	0.90	26,220	1.41	1.20	22,150	1.20	1.21
2009												
Grade 5	37,362	0.30	0.40	37,362	1.67	0.75	25,850	1.39	1.22	21,551	1.33	1.28
Grade 9	34,229	0.30	0.40	34,229	1.86	0.83	28,487	1.46	1.90	24,211	1.19	1.18
2011												
Grade 5	35,223	0.42	0.46	35,223	1.69	0.78	22,668	2.27	1.46	19,646	2.09	1.602
Grade 9	32,793	0.40	0.46	30,886	1.46	0.61	26875	2.33	1.39	23,763	1.96	1.44
2013												
Grade 5	34,481	0.52	0.44	34,481	1.46	0.73	24,416	2.29	1.47	20,705	2.11	1.60
Grade 9	32,711	0.48	0.44	32,711	1.59	0.73	27,894	2.44	1.44	24,285	2.02	1.49

4.1.3 *Descriptive Analyses of School Resource and Teacher Qualification Variables*

The purpose of this section is to examine the *frequency* or amount of school resource and teacher qualification variables in Paraibano schools over the four time points of this study. A general analysis of school resource and teacher qualification variables available in schools in Paraiba, and how these levels may change over time, helps to contextualize and will aid in interpreting the results of this study. The variables are organized and displayed in the blocks in which they are later entered into the multilevel models.

Figure 4.3 presents the *frequency* of school resource and teacher qualification variables in grade 4/5 in 2007, 2009, 2011, and 2013. Interestingly, all of the resources appear to be highest in 2011, and then experience a notable decline in 2013. The measure of teacher supports appear to have increased the most over the four time points overall. The reason for the significant drop in average teacher education between 2011 and 2013 is not clear. This result may merit cautious interpretation due to the smaller sample size in 2013, the higher amount of missing data, and the aggregation of the variable to the school level.

Figure 4.3: Means of Grade 4/5 School Resource and School Mean Teacher Qualification Levels 2007, 2009, 2011, 2013

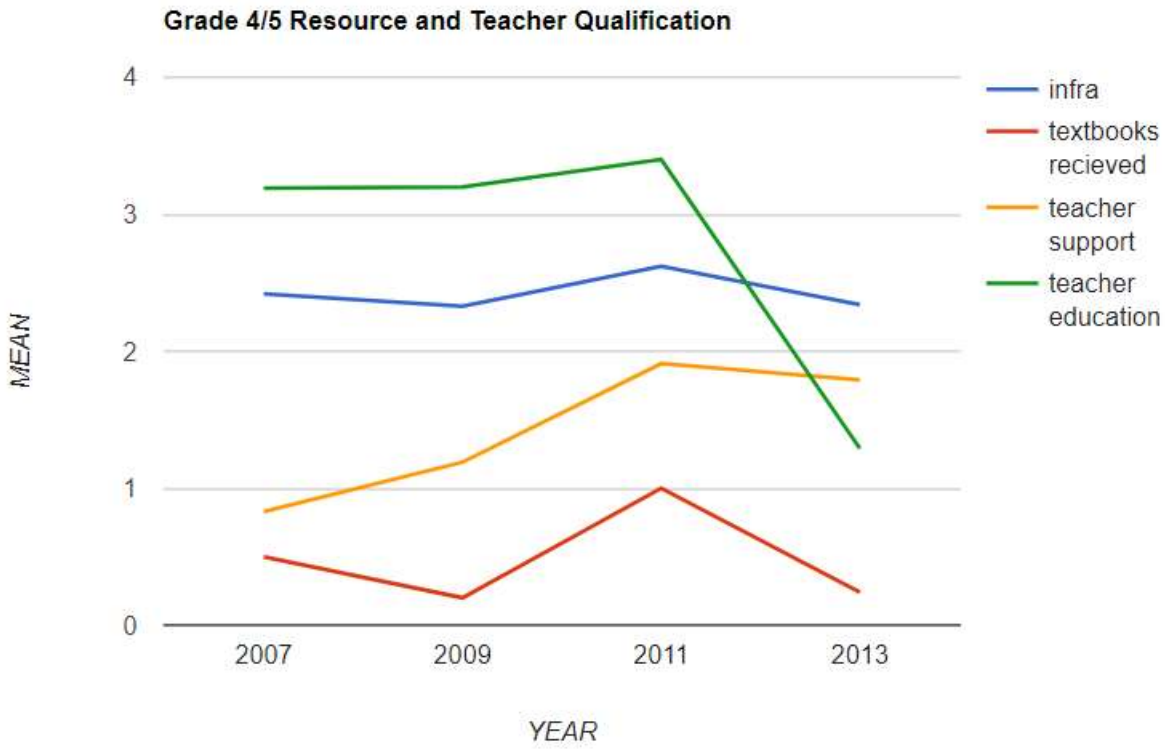


Figure 4.4 displays the *frequency* of grade 8/9 school resource and school mean teacher qualification means and displays similar trends to the grade 4/5 graph. Once again teacher supports, defined in this study as photocopiers, libraries, teacher computers, and internet for teachers, increased the most between 2007 and 2013. It is the only variable not to drop between 2011 and 2013. Infrastructure and textbooks fluctuate but their mean levels stay roughly similar if examining their levels in 2007 and comparing them with their 2013 levels. Again teacher education takes an enormous drop between 2011 and 2013 but again caution is warranted as the reasons for this drop are not known and due to the smaller sample size, larger amount of missing data, and aggregated nature of the data values for the teacher education level variable.

Figure 4.4: Means of Grade 8/9 School Resource and Teacher Qualification Levels 2007, 2009, 2011, 2013

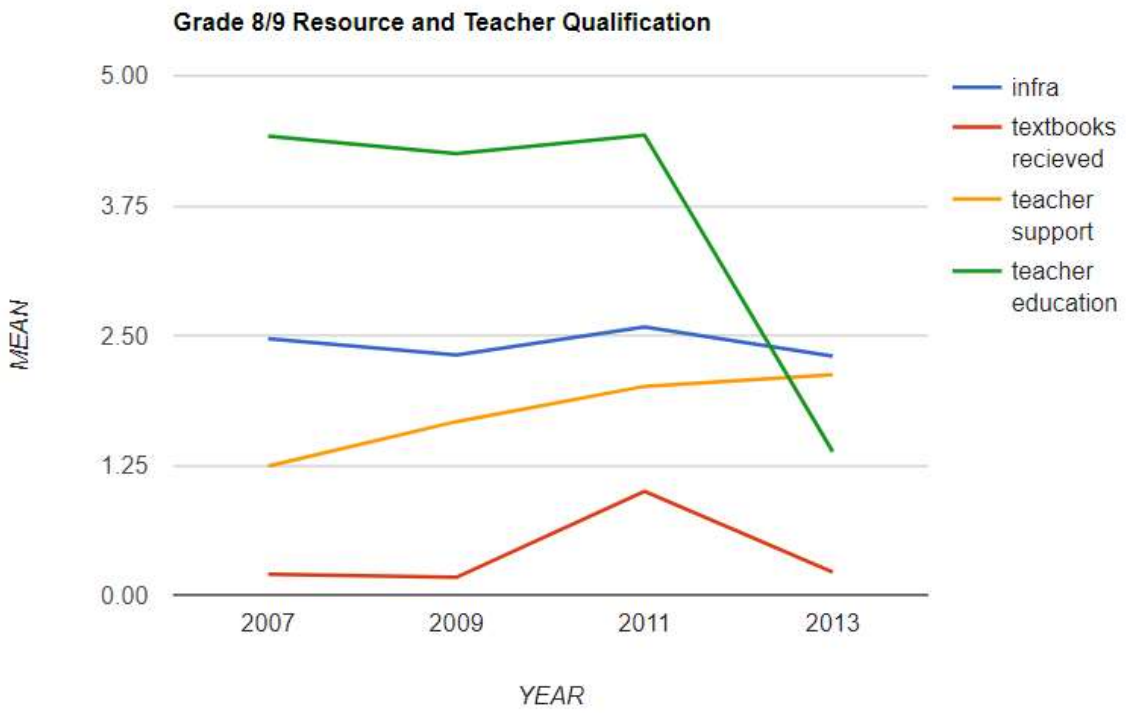


Table 4.3 displays the mean school resource and teacher qualification levels by grade and by year. Infrastructure, over the four time points, remains roughly at a value of 2.4. This translates to a mean measure of infrastructure (here defined as the condition of the roof, floors, windows, and electricity) as 'okay'. Other than in 2011, when most textbooks arrived in schools, textbooks did not appear to arrive in schools in 2007, 2009, and 2013. Teacher supports, which are measured on the same Likert scale as infrastructure, made the jump from often not existing or being of 'bad' quality in 2007 to being of either 'bad' or 'okay' quality but present in schools in 2013. Teacher education went from an increasing average in grade 4/5 of an undergraduate degree or teaching license to a middle or high school graduation average. Grade 8/9 teachers had a slightly higher average education level, which indicates an undergraduate degree in education and license in Portuguese or mathematics but again the education level dips in 2013 for unknown reasons. A descriptive analysis of the predictors and outcomes of this study aids in the contextualization, interpretation, and discussion of the multilevel models that follow in Section 4.2.

Table 4.3: Mean School Resource and Teacher Qualification Levels for Grade 4/5 and 8/9 students in 2007, 2009, 2011, and 2013 in Paraiba

YEAR	INFRASTRUCTURE			TEXTBOOKS RECIEVED			TEACHER SUPPORT			TEACHER EDU		
	n	Mean	(SD)	n	Mean	(SD)	n	Mean	(SD)	n	Mean	(SD)
2007												
Grade 4	37,476	2.42	0.55	37,911	0.50	0.23	37,137	0.83	0.81	37,911	3.19	1.23
Grade 8	30,957	2.47	0.50	31,417	0.02	0.13	30,241	1.24	0.83	31,417	4.42	1.03
2009												
Grade 5	36,149	2.33	0.58	36,032	0.20	0.40	32,146	1.19	0.90	36,032	3.20	1.30
Grade 9	33,256	2.31	0.57	32,965	0.17	0.38	30,339	1.67	0.81	32,965	4.25	1.26
2011												
Grade 5	35,469	2.62	0.38	35,637	1.00	0.00	35,210	1.91	0.68	35,637	3.40	1.18
Grade 9	32,944	2.58	0.38	32,802	1.00	0.00	32,886	2.02	0.66	32,802	4.43	1.09
2013												
Grade 5	36,230	2.34	0.54	30,513	0.24	0.43	32,304	1.79	0.86	35,627	1.29	1.23
Grade 9	32,798	2.30	0.57	25,028	0.22	0.42	28,664	2.12	0.77	32,781	1.38	1.30

4.2 Multilevel Models

Section 4.1 displayed general descriptive trends and patterns in both the predictor variables and the outcome measures over the four time points of this study. Overall, socio-economic student background characteristic measures increased slightly, with parental education levels experiencing the largest and most positive trends. School resources, particularly teacher supports, increased up until 2011 and then experienced a dip in 2013. Teacher education also increased steadily until 2011 and then experienced a large dip. Interestingly, grade 4/5 Portuguese and mathematics outcomes increased between 2011 and 2013. Grade 8/9 mathematics outcomes increased between 2007 and 2011, then also leveled out between 2011 and 2013. Grade 8/9 Portuguese outcomes increased between 2007 and 2009 and then have remained at a similar level since then. This section examines more closely the extent to which the *frequency* of predictor variables impact students' Portuguese and mathematics outcomes on Prova Brasil tests in 2007, 2009, 2011, and 2013 after controlling for student's socio-economic background characteristics. The extent to which each school district played a role in the variation between students' scores is also explored through an examination of the intra-class correlation (ICC).

4.2.1 *2007 Model Results*

2007 Grade 4 Portuguese

Model 1: Null Model

The null model for the 2007 grade 4 Portuguese data reports an intra-class correlation (ICC: the amount of variability in educational achievement that lies between schools and school districts) of 11% suggests that the development of a multilevel model is warranted. Of this 11%, 2% of the variance is explained by the school district (third) level. The -2 Log Likelihood (-2LL: an indicator of model fit) value is reported as 379644.15 in order to assess the model fit of the next multilevel models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The change in -2 Log Likelihood (Δ-2LL) of 182553.82 indicates that Model 2 is a better fit for the data than the null model. This change is significant, χ^2 (4) = 197090.33, p = <.01. *All* of the variables chosen by the researcher to represent the socio-economic background characteristics of

students were highly significant predictors in explaining the variance. Wealth was the most significant predictor of achievement in grade 4 Portuguese, predicting a 9 point decrease in students' scores based as their position on the wealth scale decreased. The crowdedness of a student's home predicted a 4 point increase on the Portuguese assessment (less crowded predicting higher score), and parental education both being positive predictors of student success and mother's education predicting a 2.1 point increase and father's education 1.2 points. These values are consistent throughout all the models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of the model is now 179641.40 indicating that the model is a better fit for the data after the inclusion of infrastructure. This change is significant, χ^2 (1) = 2912.42, p = <.01. Infrastructure was a significant predictor of student achievement, predicting a 1.6 point increase on the Prova Brasil Portuguese assessment as infrastructure quantity and quality increased.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of the model shows a slight improvement of model fit after textbooks were added at 179638.49. This change is not significant, χ^2 (1) = 2.91. Textbooks were not a significant predictor of student achievement and in this model, and infrastructure also becomes not significant.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is 178066.90 and it therefore a better fit for the data than the models before it. This change is significant, χ^2 (1) = 1571.59, p = <.01. In this model both infrastructure and textbooks remain not significant but teacher supports are. Teacher supports predict a 1.4 point increase in student achievement on the Prova Brasil Portuguese assessment as teacher supports are increased in quantity and quality.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is 178063.07 and is again a better fit for the data than the model before it. This change is significant, χ^2 (1) = 3.83, p = <.05. Neither infrastructure nor textbooks were significant in this final model, but teacher support continued to significantly predict a 1.4 point

increase on the test and teacher education also significantly predicted a score 0.7 points higher on the assessment as teacher education level increased. The student's socio-economic background characteristics remain as they were in the first model.

Table 4.4: 2007 Grade 4 Portuguese

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	157.4***	.63	157.6***	.69	157.83***	.69	157.78***	.69	157.93***	.71	158.0***	.70
Wealth			-9.0***	.70	-9.1***	.71	-9.1***	.71	-9.1***	.71	-9.1***	.71
Crowded			4.0***	.35	4.0***	.35	4.0***	.35	4.1***	.35	4.1***	.35
Mother Edu			2.1***	.25	2.1***	.25	2.1***	.25	2.1***	.25	2.1***	.25
Father Edu			1.2***	.24	1.2***	.24	1.2***	.24	1.2***	.24	1.2***	.24
Infra					1.6*	.85	1.6	.85	1.3	.88	1.2	.88
Textbooks							-3.5	2.1	-3.5	2.1	-3.38	2.1
Teacher Supp									1.4*	.64	1.4*	.64
Teacher Edu											.7*	.36
χ^2			197709.33**		2912.42**		2.91		1571.59**		3.83*	
R^2_L			0.48**		0.47**		0.47**		0.469**		0.469*	

* $p < .05$ ** $p < .01$ *** $p < .001$

n = 38,087

ICC = 11%, with 2% at Level 3

2007 Grade 4 Mathematics

Model 1: Null Model

The null model for the grade 4 mathematics assessment in 2007 reports an ICC of 13.02%, 3% of which is explained by the variance attributable to the school district level. This indicates that the construction of a multilevel model is warranted. The -2LL of this model is reported as 382963.30 and will be used to assess the fit of the ensuing models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is 184659.91 indicating that this model is a much better fit for the data than the null model. This change is significant, χ^2 (4) = 198303.39, p = <.01. All of the student's socio-economic background characteristics are highly significant predictors of student success on the mathematics assessment. Wealth is the most significant predictor of performance on the assessment, predicting a 7 point decrease on the assessment score as the student's wealth decreases. Not having a crowded home predicted a 3.6 point higher score. Mother's education predicted a 2.1 point gain on the test, and father's education predicted a .9 point gain. These socio-economic background characteristics remained significant and stable throughout the models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is reported as 181722.53 indicating a better fit for the data than the models before it. This change is significant, χ^2 (1) = 2937.38, p = <.01. Infrastructure was not, however, a significant predictor of student scores on the 2007 Prova Brasil assessment of mathematics.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is 181720.65 indicating only a very slightly better model fit for the data. This change is not significant, χ^2 (1) = 1.88. Textbooks were also not a significant predictor of student scores on the Prova Brasil assessment.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model indicates that the model is a better fit for the data with a value of 180132.11. This change is significant, χ^2 (1) = 1588.54, p = <.01. Teacher support is a significant predictor of student scores on this assessment, predicting a 2.2 point gain where they are in greater quantity and greater quality.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 180131.20 which indicates, again, only a very slight betterment of model fit. This change is not significant, χ^2 (1) = 0.91. Teacher education is not a significant predictor of student scores on the Prova Brasil mathematics assessment in 2007. Teacher support remains significant (2.2 points), but neither infrastructure nor textbooks are significant in the final model. Student's socio-economic background characteristics remain the most significant predictors and are consistent in their significance and importance across the models.

Table 4.5: 2007 Grade 4 Mathematics

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	175.7***	.73	176.84***	.81	177.1***	.80	177.0	.80	177.3***	.81	177.3***	.81
Wealth			-7.4***	.74	-7.5***	.75	-7.5***	.75	-7.5***	.75	-7.5***	.75
Crowded			3.6***	.37	3.6***	.37	3.6***	.37	3.7***	.37	3.7***	.37
Mother Edu			2.1***	.27	2.1***	.27	2.1***	.27	2.1***	.27	2.1***	.27
Father Edu			.9***	.25	.9***	.25	.9***	.25	.9***	.26	.9***	.26
Infra					1.5	.92	1.5	.92	.9	.96	.9	.96
Textbooks							-3.1	2.2	-3.0	2.2	-2.9	2.2
Teacher Supp									2.2**	.7	2.2**	.7
Teacher Edu											.37	.4
χ^2			198303.39**		2937.38**		1.88		1588.54**		0.91	
R^2_L			0.48**		0.47**		0.47		0.47**		0.47	

* $p < .05$ ** $p < .01$ *** $p < .001$

n = 38,087

ICC = 13.02%, with % at Level 3

2007 Grade 8 Portuguese

Model 1: Null Model

The null model for the grade 8 Portuguese Prova Brasil assessment reports an ICC of 9.1%, with 1.9% of that variation being explained at the school district level. This is an indication that the data warrants the development of a multilevel model. The -2LL is found to be 321380.10 and this number will be used as a baseline with which to compare the fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is 215610.47 and this figure indicates that the model is now a better fit for the data than the null model was. This change is significant, $\chi^2(1) = 105769.63$, $p = <.01$. All of the socio-economic background characteristics of the students are significant predictors of student outcomes on the Prova Brasil test of Portuguese in grade 8 in 2007. Of note, the wealth predictor is the least significant, predicting a 2.4 point decrease on the assessment as the student's wealth drops. This predictor is far weaker than noted in the 2007 grade 4 models. Also of note, father's education is as powerful of a predictor as mother's education in grade 8 Portuguese scores, both predicting a 2.5 point increase on the assessment. All of the socio-economic background predictors remain consistently significant and stable in their predictive power over all of the four subsequent models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is 212179.06 indicating that the model is a slightly better fit for the data than the one before it. This change is significant, $\chi^2(1) = 3431.41$, $p = <.01$. Infrastructure, however, is not a significant predictor of student outcomes on the Prova Brasil assessment of Portuguese.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is reported as 212178.96 which indicates that the model is only a very slightly better fit for the data after adding this predictor. This change is not significant, $\chi^2(1) = 0.1$. Textbooks were not a significant predictor of student outcomes.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is reported as 207187.22 indicating that the model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 4991.74, p = <.01. Teacher supports, however, are not a significant predictor of student outcomes on the test.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is 207183.93 indicating that this model is a better fit for the data than the ones before it. This change is not significant, χ^2 (1) = 3.29. Teacher education is a significant positive predictor of student outcomes, predicting almost a one point increase on the Prova Brasil Portuguese assessment as teacher education level increases. The socio-economic background characteristics of students were stable in their significance and predictions of student success on this assessment. Other than teacher education, the other predictors remained not significant.

Table 4.6: 2007 Grade 8 Portuguese

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	213.1***	.71	216.6***	.73	216.7***	.74	216.7***	.74	216.6***	.77	216.8***	.76
Wealth			-2.4**	.86	-2.6**	.86	-2.6**	.86	-2.7**	.87	-2.6**	.87
Crowded			3.1***	.33	3.1***	.33	3.1***	.33	3.1***	.33	3.1***	.33
Mother Edu			2.5***	.27	2.5***	.28	2.5***	.28	2.5***	.28	2.5***	.28
Father Edu			2.5***	.28	2.5***	.28	2.5***	.28	2.5***	.29	2.5***	.29
Infra					1.1	1.1	1.1	1.1	1.2	1.1	1.0	1.1
Textbooks							1.1	3.3	1.4	3.4	1.6	3.4
Teacher Supp									-.3	.71	-0.3	.71
Teacher Edu											.96*	.53
χ^2			105769.63**		3431.41**		0.1		499.74**		3.29	
R^2_L			0.67**		0.66**		0.66		0.64**		0.64	

* $p < .05$ **$p < .01$ ***$p < .001$

n = 31,474

ICC = 9.1% with 1.9% at Level 3

2007 Grade 8 Mathematics

Model 1: Null Model

The ICC of the null model for the grade 8 mathematics Prova Brasil assessment in 2007 is reported as 8.8%, with 2.1% of this variation being explained by the school district level. The -2LL of this model is reported as 318436.01and this value will be used to measure the fit of the subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is reported as 213501.73 indicating that this model is a better fit for the data than the null model. This change is significant, χ^2 (4) = 104934.28, p = <.01. All of the student's socio-economic background characteristics are significant predictors of student outcomes. Interestingly, mother's education and crowdedness of the family home are the most significant predictors, each predicting a 2.5 point increase on the assessment as mother's education increases and the crowdedness of the home decreases. Father's education is the next most powerful predictor, predicting a 2.1 point increase in student outcomes. Again it is noted that mother and father's education levels are almost equally significant and powerful. Wealth was the least powerful predictor, predicting a 2.1 point increase in scores as wealth increases.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL value of this model is 210073.57 indicating that this model is a slightly better fit for the data than the ones before it. This change is significant, χ^2 (1) = 3428.16, p = <.01. Infrastructure, however, is not a significant predictor of student outcomes on the grade 8 Prova Brasil assessment of mathematics.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is reported as 210073.49 indicating that this model is only very slightly a better fit for the data. This change is not significant, χ^2 (1) = 0.08. Textbooks are not a significant predictor of student outcomes on this assessment.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is reported as 205098.69 indicating that this model is a better fit for the data. This change is significant, χ^2 (1) = 4974.80, p = <.01. Teacher supports, however, unlike in the grade 4 models, are not a significant predictor of student outcomes on this assessment.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is 205095.57 indicating that this model is a slightly better fit for the data than the one previous. This change is not significant, χ^2 (1) = 3.12. Teacher education is found to predict, as was the case in the grade 8 Portuguese assessment, approximately a 1 point increase in student scores on the mathematics assessment as teacher education levels rise. The other school based predictors remained not significant. The socio-economic background characteristics of students remained stable predictors of student outcomes on the Prova Brasil mathematics assessment for grade 8 students in 2007.

Table 4.7: 2007 Grade 8 Mathematics

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	223.9***	.68	227.0***	.71	227.1***	.71	227.1***	.71	227.2***	.73	227.3	.74
Wealth			-2.1**	.82	-2.1**	.82	-2.1**	.82	-2.1**	.83	-2.1**	.83
Crowded			2.5***	.31	2.4***	.31	2.4***	.31	2.5***	.32	2.5***	.32
Mother Edu			2.5***	.26	2.5***	.26	2.4***	.26	2.5***	.27	2.5***	.27
Father Edu			2.2***	.27	2.2***	.27	2.2***	.27	2.1***	.27	2.1***	.27
Infra					.9	1.0	.9	1.0	.8	1.0	.64	1.0
Textbooks							-.9	3.1	-1.0	3.1	-.8	3.1
Teacher Supp									.2	.66	.2	.65
Teacher Edu											.9*	.49
χ^2			104934.28**		3428.16**		0.08		4974.80**		3.12	
R^2_L			0.67**		0.659**		0.659		0.64**		0.64	

* $p < .05$ **$p < .01$ ***$p < .001$

n = 31,474

ICC = 8.8% with 2.1% at Level 3

4.2.2 *2009 Model Results*

2009 Grade 5 Portuguese

Model 1: Null Model

The ICC of the grade 5 Portuguese Prova Brasil assessment of Portuguese null model is reported as 11.6%, with 2.8% of the variance attributable to the school district level. The -2LL value is reported as 375678.82 and this is the benchmark value by which subsequent model fit will be assessed.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is 193664.13 indicating that this model fit is much better than that of the null model. This change is significant, χ^2 (4) = 182014.69, p = <.01. In this model, all of the student's socio-economic background characteristics are significant predictors of student achievement. Wealth predicted a 8.2 point decrease in a student's outcome as the wealth of the student decreases. The crowdedness of a home was also a significant predictor as a less crowded home predicted a 4.1 point increase in a student's outcome. Mother's education predicted a 3.5 point increase in a student's outcome. Father's education was also a significant predictor of student outcomes, predicting a 1.6 point increase on the assessment. All of these predictors remained significant and stable over all of the subsequent models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is reported as 185741.23 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 7922.90, p = <.01. Infrastructure is reported as a significant predictor of student outcomes on the grade 5 Portuguese Prova Brasil assessment, predicting a 1.8 increase in student's scores. It is noted that infrastructure is a more significant predictor than father's education and that the grade 4 2007 Portuguese model also showed infrastructure to be a significant predictor although not across all models as is the case with the 2009 model.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is reported as 184886.70 and therefore this model is a slightly better fit for the data than the one before it. This change is significant, χ^2 (1) = 854.53, p = <.01.

Textbooks, however, are not a significant predictor of grade 5 Portuguese outcomes on the 2009 Prova Brasil assessment. Infrastructure remains a significant predictor of outcomes.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is 164145.30 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 20741.40, p = <.01. Teacher supports, however, are not a significant predictor of student outcomes. Textbooks remain a not significant predictor, and infrastructure, although declining slightly in importance, remains significant.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is 164135.76 which indicates that this model is a slightly better fit for the data than the one before it. This change is significant, χ^2 (1) = 9.54, p = <.01. Teacher education level is a significant predictor of student outcomes on the Prova Brasil assessment of Portuguese, predicting a 1.1 point increase in scores as teacher education level increases. Infrastructure also remains a significant predictor, and textbooks and teacher support remain not significant. The socio-economic background characteristics of students remain significant predictors of student outcomes. It is noted that infrastructure remains a more significant predictor than father's education level, and that the 2007 model of grade 4 Portuguese also shows teacher education to be a significant predictor of student outcomes

Table 4.8: 2009 Grade 5 Portuguese

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	162.9***	.67	163.5***	.68	163.9***	.69	163.8***	.69	164.1***	.69	164.2***	.68
Wealth			-8.2***	.64	-8.2***	.77	-8.2***	.65	-8.3***	.69	-8.3***	.69
Crowded			4.1***	.35	4.2***	.65	4.2***	.36	4.0***	.38	4.0***	.38
Mother Edu			3.5***	.24	3.6***	.36	3.6***	.25	3.9***	.26	3.9***	.26
Father Edu			1.6***	.24	1.6***	.25	1.6***	.24	1.5***	.26	1.5***	.26
Infra					1.8*	.24	1.7*	.79	1.7*	.82	1.6*	.82
Textbooks							-1.3	1.1	-.6	1.2	.66	1.2
Teacher Supp									.59	.53	.58	.53
Teacher Edu											1.1**	.35
χ^2			182014.69**		7922.90**		854.53**		20741.40**		9.54**	
R^2_L			0.52**		0.49**		0.49**		0.44**		0.44**	

* $p < .05$ **$p < .01$ ***$p < .001$

n = 49,496

ICC = 11.6% with 2.8% at Level 3

2009 Grade 5 Mathematics

Model 1: Null Model

The ICC of the null model for the grade 5 Prova Brasil assessment of mathematics is reported as 13.8% with 3.9% of the variance explained at the school district level. These values suggest that the development of a multilevel model is warranted. The -2LL of the null model is reported as 379068.37 and subsequent model fit is determined using this reference point.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is 195666.17 indicating that this model is a much better fit for the data than the null model. This change is significant, χ^2 (4) = 183402.2, p = <.01. As with the grade 5 Portuguese model, all of the student socio-economic background characteristics are significant predictors of student outcomes on the grade 5 mathematics Prova Brasil assessment. Wealth predicted a score 6.8 points lower on the assessment as the wealth of the student decreased. Having a less crowded home predicts a 3.8 increase on the assessment, and mothers education predicts a 2.9 point increase, and fathers education predicts a 1.1 point increase. These predictors remain significant and stable predictors across the subsequent models. Mothers education does increase in its strength slightly in the last two models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is 187626.01 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 8040.16, p = <.01. Infrastructure is a significant predictor of student outcomes on the grade 5 mathematics assessment, predicting a 2.3 point increase in a student's score. Infrastructure was not a significant predictor of student outcomes in grade 4 mathematics in 2007.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is reported as 186730.75 indicating that this model is a slightly better fit than the models before it. This change is significant, χ^2 (1) = 895.26, p = <.01. Textbooks were not a significant predictor of student outcomes, and although infrastructure remains significant, it drops very slightly in strength to predicting a 2.2 point increase in scores.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is reported as 168746.28 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 17984.47, p = <.01. Teacher support was a significant predictor of student outcomes on the grade 5 mathematics assessment, predicting a 1.3 point increase in student scores. Infrastructure remained a significant predictor throughout this model.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 166016.61 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 2729.67, p = <.01. Teacher education is a significant predictor of student outcomes in this model, predicting a 1 point increase on the assessment. Teacher support and infrastructure also remain significant predictors of student outcomes. The socio-economic background characteristics of students remained stable and significant predictors of student achievement on the grade 5 mathematics assessment in 2007.

Table 4.9: 2009 Grade 5 Mathematics

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	181.5***	.79	182.4	.85	182.8***	.85	182.8***	.86	183.2***	.86	183.2***	.85
Wealth			-6.8***	.67	-6.7***	.68	-6.6***	.68	-6.8***	.73	-6.8***	.73
Crowded			3.8***	.37	3.8***	.37	3.9***	.38	3.8***	.4	3.8***	.4
Mother Edu			2.9***	.26	2.9***	.26	2.9***	.26	3.3***	.28	3.3***	.28
Father Edu			1.1***	.25	1.1***	.25	1.1***	.25	1.0***	.27	1.0***	.27
Infra					2.3**	.89	2.2**	.9	2.1*	.94	2.1*	.94
Textbooks							-1.0	1.3	-.6	1.3	-.7	1.3
Teacher Supp									1.3*	.61	1.2*	.61
Teacher Edu											1.0**	.4
χ^2			183402.2**		8040.16**		895.26**		17984.47**		2729.67**	
R^2_L			0.52**		0.49**		0.49**		0.44**		0.44**	

* $p < .05$ ** $p < .01$ *** $p < .001$

n = 49,496

ICC = 13.8% with 3.9% at Level 3

2009 Grade 9 Portuguese

Model 1: Null Model

The ICC of the null model for the grade 8 Prova Brasil Portuguese assessment is reported as 12.1%, with 2.2% of the variation attributable to the school district. This ICC value suggests that building a multilevel model is warranted. The -2LL of the null model is reported as 353973.36 and this value will be used to judge the fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is 236562.40 indicating that this model is a better fit for the data than the null model. This change is significant, χ^2 (4) = 117410.96, p = <.01. All of the student socio-economic background characteristics are significant predictors of student outcomes on the grade 9 Prova Brasil assessment of Portuguese. Interestingly, as was the case in the 2007 grade 9 Portuguese and mathematics models, wealth is the least significant predictor (-2.3 points), and has declined in strength when compared with the 2007 and 2009 grade 4/5 models. The crowdedness of the home predicted a 3.8 point increase in scores for students whose homes are less crowded. Also, like the grade 8 2007 models of Portuguese and mathematics, the gap between the strength of mothers education and fathers education is much smaller, with mothers education predicting a 2.9 point increase on the assessment, and fathers education predicting a 2.1 point increase. Over the six models built, wealth does become a more significant predictor, and the other predictors remain significant and stable over the models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is 228988.93 indicating that this model is a better fit for the data than the models before it. This change is significant, χ^2 (1) = 7573.47, p = <.01. Infrastructure was not a significant predictor of student outcomes on the grade 9 Portuguese assessment. Of note, the predictor came close to the $p < 0.5$ cut of for significance.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is reported as 226451.47 which indicates that this model is a better fit for the data than the model before it. This change is significant, χ^2 (1) = 2537.46, p = <.01.

Textbooks are not a significant predictor of student outcomes on the grade 9 Portuguese assessment in 2009.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is 206028.12 and this value indicates that this model is a better fit for the data than the one before it. This change is significant, χ^2 (1) = 20423.35, p = <.01. Teacher support is not a significant predictor of student outcomes on this assessment.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 206026.10 which indicates this model is a very slightly better fit for the data than the model before it. This change is not significant, χ^2 (1) = 2.02. Unlike in the 2007 grade 9 Portuguese model, teacher education is not a significant predictor of student outcomes. None of the other school level predictors were significant in this model. All of the student socio-economic background characteristics continued to be significant predictors of student outcomes on the 2009 grade 9 Portuguese Prova Brasil assessment.

Table 4.10: 2009 Grade 9 Portuguese

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	221.4***	.82	224.6***	.83	224.7***	.82	224.8***	.81	225.0***	.83	225.0***	.83
Wealth			-2.3**	.76	-2.6***	.77	-2.6***	.77	-3.2***	.82	-3.2***	.82
Crowded			3.8***	.35	3.8***	.36	3.8***	.36	3.8***	.38	3.8***	.38
Mother Edu			2.9***	.28	3.0***	.28	3.0***	.28	3.0***	.29	3.0***	.29
Father Edu			2.1***	.28	2.1***	.29	2.1***	.29	2.2***	.31	2.2***	.31
Infra					1.8 (almost)	1.0	1.4	1.0	1.0	1.1	1.1	1.1
Textbooks							-2.1	1.5	-2.3	1.6	-2.4	1.6
Teacher Supp									.9	.75	.8	.75
Teacher Edu											.7	.46
χ^2			117410.96**		7573.47**		2537.46**		20423.35**		2.02	
R^2_L			0.67**		0.65**		0.64**		0.58**		0.58	

* $p < .05$ **$p < .01$ ***$p < .001$

n = 57,488

ICC = 12.1% with 2.2% at Level 3

2009 Grade 9 Mathematics

Model 1: Null Model

The ICC of this model is reported as 9.9%, with 1.6% of the variation attributable to the school district level which suggests that the building of a multilevel model is warranted. The -2LL of the model is reported as 348551.36 and this value will be used as a benchmark by which subsequent model fit will be assessed.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is reported as 233044.07 which indicates that this model is a better fit for data than the null model. This change is significant, χ^2 (4) = 115507.29, p = <.01. As was the case with both of the 2007 grade 8 models (Portuguese and mathematics), and the 2009 grade 9 Portuguese model, wealth is not as significant of a predictor as in the grade 4 models, in this case predicting a 1.8 point decrease in student outcomes on this assessment as wealth decreased. The predictor becomes more significant over the course of the models, however, it also becomes a weaker predictor, predicting only a 1.2 point decrease in the final model. Crowdedness of the home is also a significant predictor, predicting a 2.2 point increase in a student's score as the crowdedness of students' homes decreases. Mother's education is the most significant predictor of student outcomes, predicting a 2.9 point increase in student's scores. Of note, fathers education, like in the grade 8 2007 models (Portuguese and mathematics) and the grade 9 2009 Portuguese models, is almost predicts the same point increase in students' scores as mothers education, predicting a 2.1 increase in student's scores. The student socio-economic background characteristics remain significant across all of the models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is reported as 225637.98 and is therefore a slightly better fit for the data than the model before it. This change is significant, χ^2 (1) = 7406.09, p = <.01. Infrastructure is not a significant predictor of student outcomes on the grade 9 mathematics assessment in 2009.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is 223072.40 indicating that this model is a slightly better fit for the data than the model before it. This change is significant, χ^2 (1) = 2565.58, p = <.01. Textbooks are not a significant predictor of student scores on this assessment.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is 202841.91 indicating that this model is a better fit for the data than the models before it. This change is significant, χ^2 (1) = 20230.49, p = <.01. Teacher support is not a significant predictor of student outcomes on the 2009 Prova Brasil assessment of mathematics.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 202839.96 indicating that this model is a better fit for the data than the models before it. This change is not significant, χ^2 (1) = 1.95. Unlike the 2007 model of grade 8 mathematics, teacher education is not a significant predictor of student outcomes on the 2009 grade 9 mathematics Prova Brasil assessment. None of the other school level predictors were significant predictors in this model. The student socio-economic background characteristics remained stable and significant predictors of student outcomes on this assessment.

Table 4.11: 2009 Grade 9 Mathematics

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	225.4***	.68	228.7***	.68	228.7***	.68	228.6***	.68	228.7***	.69	228.7***	.7
Wealth			1.8**	.70	1.7**	.71	1.7**	.72	1.3***	.76	1.2***	.76
Crowded			2.2***	.33	2.2***	.33	2.1***	.33	2.1***	.35	2.1***	.35
Mother Edu			2.9***	.26	2.9***	.26	3.0***	.26	2.9***	.27	2.9***	.27
Father Edu			2.1***	.26	2.1***	.27	2.2***	.27	2.2***	.28	2.2***	.28
Infra					1.5	.9	1.1	.89	.93	.94	1.0	.93
Textbooks							-2.2	1.4	-1.8	1.4	-1.9	1.4
Teacher Supp									.1	.66	.06	.66
Teacher Edu											.57	.41
χ^2			115507.29**		7406.09**		2565.58**		20230.49**		1.95	
R^2_L			0.67**		0.65**		0.64**		0.58**		0.58	

* p < .05 **p < .01 ***p < .001

n = 57,488

ICC = 9.9% with 1.6% at Level 3

4.2.3 *2011 Model Results*

2011 Grade 5 Portuguese

Model 1: Null Model

The ICC of this model is reported as 10.3%, with 2.7% of the variance attributable to the school district levels. These values indicate that the development of a multilevel model is warranted. The -2LL of this model is reported as 360742.03 and this value will be used to judge the fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is 170746.13 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (4) = 189995.90, p = <.01. As was the case in the grade 4/5 models (Portuguese and mathematics) in 2007 and 2009, all of the student socio-economic background characteristics are significant predictors of student outcomes on the grade 5 Prova Brasil Portuguese assessment. Wealth predicted a 5.2 point decrease on the test as the wealth of a student's family decreases. The crowdedness of a student's home predicted a 4.9 point increase on the assessment as the crowdedness of a student's home decreased. Mothers education is a significant predictor, predicting a 2.9 point increase in students' outcomes, and fathers education was also a significant predictor, predicting a 1.3 point increase in student's scores. All of the student socio-economic background characteristics remain significant and stable predictors of student outcomes on this assessment across the subsequent models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is reported as 170003.54 indicating that this model is a better fit for the data than the model before it. This change is significant, χ^2 (1) = 742.59, p = <.01. Infrastructure, as was the case in the 2007 and 2009 grade 4/5 Portuguese models, is a significant predictor of student outcomes on this assessment. Infrastructure predicts a 3.6 point increase in student's scores as infrastructure of the school improves. Of note, infrastructure remains significant across the models, but becomes slightly less significant and drops in its strength, predicting a 2.5 point increase in student's scores in the final model.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is 169994.42 indicating that this model is a slightly better fit for the data than the one before it. This change is significant, $\chi^2(1) = 9.12$, $p = <.01$. Textbooks are not a significant predictor of student outcomes in this model. This is an interesting finding given that 2011 was the year that textbooks have been descriptively shown to have arrived in schools with the greatest consistency of all of the four time points.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is 168746.28 indicating that this model is a better fit for the data than the models previous. This change is significant, $\chi^2(1) = 1248.14$, $p = <.01$. Teacher support, as was the case in the 2007 grade 4 Portuguese model, is a significant predictor of student outcomes on this assessment, predicting a 1.8 point increase in student's scores.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 168743.97 indicating that this model is a very slightly better fit than the model before it. This change is not significant, $\chi^2(1) = 2.31$. Teacher education, unlike the 2007 and 2009 grade 4 Portuguese models, is not a significant predictor of student outcomes on the grade 5 Prova Brasil Portuguese assessment. Infrastructure continued to be a significant predictor, predicting a 2.5 point increase in students' scores as the infrastructure of the school improves. The socio-economic background characteristics of students continued to be stable and significant predictors of student outcomes on this assessment in this final grade 5 2011 model for the Portuguese assessment.

Table 4.12: 2011 Grade 5 Portuguese

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	170.1***	.71	170.1	.75	170.2***	.75	170.2***	.76	170.4***	.75	170.4***	.75
Wealth			-5.2***	.68	-5.2***	.68	-5.2***	.68	-5.3***	.68	-5.3***	.68
Crowded			4.9***	.39	4.9***	.39	4.8***	.39	4.9***	.39	4.9***	.39
Mother Edu			2.9***	.24	2.9***	.24	2.9***	.24	2.9***	.24	2.9***	.24
Father Edu			1.3***	.22	1.3***	.22	1.3***	.22	1.3***	.22	1.3***	.22
Infra					3.6**	1.2	3.6**	1.2	2.6*	1.3	2.5*	1.3
Textbooks							0.0	0	0	0	0	0
Teacher Supp									1.8**		1.8**	.7
Teacher Edu											.6	.39
χ^2			189995.90**		742.59**		9.12**		1248.14**		2.31	
R^2_L			0.47**		0.47**		0.47**		0.47**		0.47	

* $p < .05$ **$p < .01$ ***$p < .001$

n = 43,532

ICC = 10.3% with 2.7% at Level 3

2011 Grade 5 Mathematics

Model 1: Null Model

The ICC of this model is reported as 16.5%, with 5.9% of the variance attributable to the school district level. These values indicate that building a multilevel model is warranted. Of note, the amount of variance attributable to the school district level is increasing when compared to the 2007 and 2009 models of grade 4/5 mathematics. The -2LL of the null model is reported as 358813.69 and this value will be used to assess the fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is reported as 169651.66 indicating that this model is a better fit for the data than the one before it. This change is significant, χ^2 (4) = 189162.03, p = <.01. All of the socio-economic background characteristics are significant predictors of student outcomes on the grade 5 Prova Brasil mathematics assessment. Wealth, in this model, is beginning to be of declining importance to student outcomes, in this case predicting a 3.7 point decrease in student scores as opposed to predicting about a 7 point decrease in previous grade 4/5 models in 2007 and 2009. Crowdedness of a students home predicts a 4.4 point increase in scores as students' homes become less crowded. Mothers education predicts a 2.6 point increase and fathers education predicts a 1.3 point increase in student scores on this assessment. All of the socio-economic background factors remain stable and significant predictors across all subsequent models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is 168922.74 indicating that this model is a better fit than the one before it. This change is significant, χ^2 (1) = 728.92, p = <.01. Infrastructure is a significant predictor of student outcomes, predicting a 5.1 point increase in student scores as infrastructure improves. It is a more significant predictor than any of the individual socio-economic background characteristics, although it is noted that the indicator drops in significance over the models, predicting a 3.7 point decrease in the final model. Infrastructure was also a significant predictor for grade 4 mathematics in 2007.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is reported as 168912.21 which indicates that this model is a slightly better fit for the data than the model before it. This change is significant, $\chi^2(1) = 10.53$, $p = <.01$. Textbooks are not a significant predictor of student scores on this assessment in this model.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is 167670.88 indicating that this model is a better fit for the data than the one before it. This change is significant, $\chi^2(1) = 1241.33$, $p = <.01$. Teacher support, as was the case in the 2007 and 2009 grade 4/5 mathematics models, is a significant predictor of student scores on the 2011 grade 5 mathematics assessment. Teacher support predicts a 2.4 point increase in student scores.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is 167670.01 indicating that this model is a very slightly better fit for the data than the model before it. This change is no significant, $\chi^2(1) = 0.87$. Teacher education, unlike the 2009 grade 5 mathematics model, is not a significant predictor of student outcomes on this assessment. Teacher support remains a significant predictor, as does infrastructure. Student socio-economic background characteristics remain significant and stable predictors of student scores on the grade 5 mathematics assessment in 2011.

Table 4.13: 2011 Grade 5 Mathematics

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	184.8***	.92	185.4***	.97	185.6***	.97	185.6***	.97	185.8***	.97	185.8***	.97
Wealth			-3.7***	.65	-3.7***	.65	-3.7***	.65	-3.7***	.66	-3.7***	.66
Crowded			4.4***	.37	4.4***	.37	4.4***	.37	4.4***	.38	4.4***	.38
Mother Edu			2.6***	.23	2.6***	.23	2.6***	.23	2.6***	.23	2.6***	.23
Father Edu			1.3***	.21	1.3***	.21	1.3***	.21	1.3***	.21	1.3***	.21
Infra					5.1***	1.4	5.1***	1.4	3.8**	1.4	3.7**	1.4
Textbooks							0	0	0	0	0	0
Teacher Supp									2.4**	.78	2.4**	.78
Teacher Edu											.41	.44
χ^2			189162.03**		728.92**		10.53**		1241.33**		0.87	
R^2_L			0.47**		0.47**		0.47**		0.47**		0.47	

* p < .05 **p < .01 ***p < .001

n = 43,532

ICC = 16.5% with 5.9% at Level 3

2011 Grade 9 Portuguese

Model 1: Null Model

The ICC of this model is reported as 9.2%, with 2.5% of the variation attributable to the school district level. These values suggest that the development of a multilevel model is warranted. Of note, the amount of variance attributable to the school district is increasing when compared to the grade 8/9 models of Portuguese in 2007 and 2009. The -2LL of this model is reported as 340715.29 and this value will be used to judge the model fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is reported as 217861.10 and therefore this model is a better fit for the data than the null model before it. This change is significant, χ^2 (4) = 122854.19, p = <.01. In keeping with the trends of the grade 8/9 Portuguese models in 2007 and 2009, the strength and significance of the wealth predictor is declining, predicting only score only 1.4 points lower as student wealth decreases. The crowdedness of a student's home predicts a 4 point increase as the homes of students become less crowded. In keeping with the trends of all of the grade 8/9 models in both Portuguese and mathematics, mothers education and fathers education are both significant predictors of student outcomes on this assessment, with mothers education predicting a 2.8 point increase in scores and fathers education predicting a 2.3 point increase, and being almost equal in strength. These predictors stay stable and significant over the course of all subsequent models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is reported as 217273.98 indicating that this model is a slightly better fit for the data than the models before it. This change is significant, χ^2 (1) = 587.12, p = <.01. In this model infrastructure is significant and predicts a 3.7 point increase in student outcomes on the grade 9 Portuguese assessment in 2011. The significance of the infrastructure predictor does not appear in the final two models, and this result is in keeping with the 2007 and 2009 grade 8/9 Portuguese models which did not find infrastructure to be a significant predictor of student scores.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is 215686.76 which indicates that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 1587.22, p = <.01. Textbooks are not a significant predictor of student outcomes on this assessment.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is reported as 215282.75 indicating that this model is a slightly better fit for the data than the model before it. This change is significant, χ^2 (1) = 404.01, p = <.01. Teacher support is a significant predictor of student outcomes on the grade 9 Portuguese assessment in 2011. Teacher support predicts a 3.2 point increase in student scores. Teacher support was not a significant predictor in the 2009 and 2007 grade 8/9 Portuguese models, it was however, a significant predictor in the grade 4/5 models in previous years.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 215279.70 indicating that this model is a slightly better fit for the data than the model before it. This change is not quite significant, χ^2 (1) = 3.05. Teacher education is very close to significance in this model (p < 0.8) but was not significant. This result is in contrast to the 2007 grade 8 Portuguese model which found it significant. Infrastructure has not remained significant in this model, but teacher support has remained a significant predictor of student outcomes on this assessment. Textbooks continued to be not significant. Student socio-economic background characteristics remained significant and stable predictors of student scores, with wealth continuing to be the weakest predictor in the model.

Table 4.14: 2011 Grade 9 Portuguese

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	219.8***	.77	223.5***	.80	223.6***	.80	223.6	.80	223.7***	.80	223.8***	.80
Wealth			-1.4*	.71	-1.4*	.71	-1.4*	.71	-1.4*	.71	-1.4*	.71
Crowded			4.0***	.51	3.9***	.51	3.9***	.51	3.9***	.51	3.9***	.51
Mother Edu			2.8***	.25	2.8***	.25	2.8***	.25	2.8***	.26	2.8***	.25
Father Edu			2.3***	.24	2.4***	.24	2.3***	.25	2.3***	.25	2.3***	.25
Infra					3.7**	1.4	3.9**	1.4	2.5	1.5	2.4	1.4
Textbooks							0	0	0	0	0	0
Teacher Supp									3.2***	.85	3.1***	.85
Teacher Edu											.9 (almost)	.51
χ^2			122854.19**		587.12**		1587.22**		404.01**		3.05	
R^2_L			0.64**		0.64**		0.63**		0.63**		0.63	

* $p < .05$ ** $p < .01$ *** $p < .001$

n = 44,510

ICC = 9.2% with 2.5% at Level 3

2011 Grade 9 Mathematics

Model 1: Null Model

The ICC of this model is reported as 10.9%, with 3.4% of the variance attributable to the school district level. These values suggest that the development of a multilevel model is warranted. Of note, the variance attributable to the school district level is increasing when compared to the values reported in 2007 and 2009 for grade 8/9 mathematics. The -2LL of the null model is reported as 340053.54 and this value will be used to assess the fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is reported as 217306.95 indicating that this model is a better fit for the data than the null model. This change is significant, χ^2 (4) = 122746.59, p = <.01. All of the socio-economic background characteristics of students are significant predictors of student outcomes on the grade 9 mathematics assessment in 2001. Wealth, in keeping with trends seen in previous grade 8/9 models, is declining in strength and significance as a predictor, predicting only a 1.5 point decrease in student scores. The crowdedness of a student's home predicts a 3.6 point increase in a student's score as the crowdedness of a student's home decreases. Again we see less of a gap between the predictive power of mothers education and fathers education at the grade 8/9 level, with mothers education predicting a 3 point increase in students' scores, and fathers education predicting a 2 point increase in students' scores on this assessment. All of these predictors remain stable and significant over all of the subsequent models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is 216723.87 indicating that this model is a better fit for the data than the models before it. This change is significant, χ^2 (1) = 583.08, p = <.01. Infrastructure is a significant predictor of student scores on the grade 9 Prova Brasil assessment of mathematics in 2001. Infrastructure predicts a 4.7 point increase in students' scores on this assessment. Infrastructure remains a significant predictor across the models, however, it declines in strength and predicts a 3.5 point increase in students' scores in the final model. Infrastructure is also a significant predictor in the grade 9 Portuguese assessment in 2011.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is reported as 215149.71 which indicates that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 1574.16, p = <.01. Textbooks are not a significant predictor of student scores on the grade 9 assessment of mathematics in 2011.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is 214741.21 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 408.50, p = <.01. Teachers support is a significant predictor of student scores on this assessment, predicting a 3.2 point increase in student scores when teacher supports are present and of higher quality. Teacher support was not significant in the 2007 or 2009 grade 8/9 mathematics models, but they are significant in the grade 9 Portuguese model in 2011.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 214731.70 indicating that this model is a slightly better fit for the data than the model before it. This change is significant, χ^2 (1) = 9.51, p = <.01. As was the case in the 2007 model of grade 8 mathematics, teacher education is significant in this model. Teacher education predicts a 1.7 point increase in students' scores on this assessment in 2011. The Portuguese model of grade 9 in 2011 had an almost significant result for teacher education also. Teacher support and infrastructure have remained significant in this model, and the student socio-economic background characteristics have also remained significant in this final model.

Table 4.15: 2011 Grade 9 Mathematics

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	227.2***	.84	230.9***	.88	231.0***	.89	231.1***	.89	231.2***	.89	231.4***	.89
Wealth			-1.5*	.70	-1.5*	.70	-1.4*	.70	-1.5*	.70	-1.5*	.70
Crowded			3.6***	.50	3.6***	.50	3.6***	.51	3.6***	.51	3.6***	.51
Mother Edu			3.0***	.25	3.0***	.25	2.9***	.25	3.0***	.25	3.0***	.25
Father Edu			2.0***	.24	2.0***	.24	2.0***	.24	2.0***	.24	2.0***	.24
Infra					4.7***	1.5	5.0***	1.5	3.6**	1.5	3.5*	1.5
Textbooks							0	0	0	0	0	0
Teacher Supp									3.2***	.89	3.0***	.88
Teacher Edu											1.7***	.53
χ^2			122746.59**		583.08**		1574.16**		408.50**		9.51**	
R^2_L			0.64**		0.64**		0.63**		0.63**		0.63**	

* $p < .05$ **$p < .01$ ***$p < .001$

n = 44,510

ICC = 10.9% with 3.4% at Level 3

4.2.4 *2013 Model Results*

2013 Grade 5 Portuguese

Model 1: Null Model

The ICC of this model is reported as 17.6%, with 8.3% of the variation attributable to the school district level. These values indicate that building a multilevel model is warranted. The values also indicate that a greater proportion of the variance is now attributable to the school district level, a trend already noted in all of the mathematics models, and the grade 8/9 Portuguese models. The -2LL of this model is reported as 379947.98 and this value will be used as a benchmark by which to judge the fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is reported as 185276.54 indicating that this model is a better fit for the data than the null model. This change is significant, χ^2 (4) = 194671.44, p = <.01. All of the socio-economic background factors of students are significant predictors of student scores on the grade 5 Portuguese assessment. Interestingly, the crowded predictor, which has been consistent through all of the other models across years, grades, and subjects, has declined in significance and strength in this model, predicting only a 1 point increase on the assessment and being significant only to the $p < 0.5$ level by the final model. Wealth predicts a 5.7 decrease in students' scores as wealth of students decreases. Mothers education is a significant predictor, predicting a 4.2 point increase in student's scores, and fathers education predicts a 1.8 point increase. All of these predictors remain stable and significant across the subsequent models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is reported as 181078.90 indicating that this model is a better fit for the data than the models before it. This change is significant, χ^2 (1) = 4197.64, p = <.01. Infrastructure is a significant predictor of student scores on this assessment, predicting a 2.1 point increase in students scores as infrastructure improves. This value increases to 2.6 in the final model. Infrastructure was also a significant predictor in the 2007, 2009, and 2011 grade 4/5 Portuguese models.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is 150271.52 indicating that this model is a better fit for the data than the ones previous. This change is significant, χ^2 (1) = 30807.38, p = <.01. Textbooks, as was the case in all previous models across years, grades, and subjects, is not a significant predictor of student outcomes on the Prova Brasil assessments.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is 134822.66 which indicates that this model is a better fit for the data than the ones previous. This change is significant, χ^2 (1) = 15448.86, p = <.01. As was the case in the 2007 and 2011 grade 4/5 Portuguese models, teacher support is a significant predictor of student scores on this assessment. Teacher support predicts a 1.5 point increase in scores as teacher support increases in quantity and quality.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is 134815.55 indicating that this model is a slightly better fit for the data than the one before it. This change is significant, χ^2 (1) = 7.11, p = <.01. Teacher education is a significant predictor of student scores on the grade 5 Portuguese assessment, predicting a 1.2 point increase in student scores as the education level of their teacher increases. Teacher education was also found to be significant in the 2009 grade 5 Portuguese model. In this final model, teacher support and infrastructure both remained significant predictors of student outcomes. The socio-economic background characteristics of students also remained stable and significant predictors of student scores on this assessment.

Table 4.16: 2013 Grade 5 Portuguese

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	171.4***	1.0	171.6***	1.0	171.6***	1.0	171.7***	1.0	171.7***	1.1	171.7***	1.1
Wealth			-5.7***	.69	-5.6***	.70	-5.4***	.77	-5.7***	.81	-5.7***	.81
Crowded			1.0**	.40	1.0**	.40	1.0*	.44	1.0*	.47	1.0*	.47
Mother Edu			4.2***	.24	4.2***	.24	4.3***	.26	4.2***	.28	4.2***	.28
Father Edu			1.8***	.22	1.7***	.22	1.5***	.24	1.7***	.26	1.7***	.26
Infra					2.1*	.93	2.6**	1.0	2.5*	1.1	2.6*	1.1
Textbooks							-1.0	1.3	.06	1.4	-.1	1.4
Teacher Supp									1.5*	.73	1.6*	.73
Teacher Edu											1.2**	.43
χ^2			194671.44**		4197.64**		30807.38**		15448.86**		7.11**	
R^2_L			0.49**		0.48**		0.40**		0.35**		0.35**	

* $p < .05$ **$p < .01$ ***$p < .001$

n = 46,361

ICC = 17.6% with 8.3% at Level 3

2013 Grade 5 Mathematics

Model 1: Null Model

The ICC of this model is reported as 20.1%, with 10.5% of the variation attributable to the school district level. These values indicate that building a multilevel model is warranted. In line with the trend previously noted, a greater and greater portion of the variance is now attributable to the school district level. The -2LL of this model is reported as 382984.16 and this value will be used to judge the model fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is reported as 186942.77 indicating that this model is a better fit for the data than the null model. This change is significant, χ^2 (4) = 196041.39, p = <.01. All of the student socio-economic background characteristics of students are significant in this second model, however, the crowded measure becomes not significant in the final two models. Wealth, predicting a 5.7 point decrease in students' scores as wealth of the student decreases, is more significant in this model than in the 2011 grade 5 model of mathematics, but is not as significant as it was in the 2007 and 2009 grade 4/5 mathematics models. These observations, taken together, support the previously identified trend of the declining strength and significance of the material wealth indicators (wealth and crowded) of students. Mothers education remains a significant predictor of student outcomes, predicting a 4.1 point higher score on the assessment, and fathers education predicting a 1.7 point higher score. Although the crowded predictor becomes not significant by the final model, the other predictors remain stable and significant over the subsequent models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is 182729.02 which indicates that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 4213.75, p = <.01. Infrastructure is a significant predictor of student scores on this assessment, predicting a 2.6 point higher score for students in schools with more and better infrastructure. This is consistent with the 2009 and 2011 grade 5 mathematics models that also found infrastructure to be a significant predictor of student scores.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is 151660.31 which indicates that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 31068.71, p = <.01. Textbooks, as was the case in all of the other models across years, grades, and subjects, was not a significant predictor of student scores on this assessment.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is reported as 136149.15 which indicates that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 15511.16, p = <.01. Teacher support is a not a significant predictor of student outcomes, but it is important to note that it comes close to the significance cut off in this model and in the final model ($p < 0.8$ in both models) for grade 5 mathematics in 2013. Teacher support is significant in the 2007, 2009, and 2011 models for grade 4/5 mathematics.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 136143.84 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 5.31, p = <.05. Teacher education is a significant predictor of student scores on this assessment, predicting a 1.1 point higher score for students. Teacher education was also a significant predictor in the 2009 model for grade 5 mathematics. Teacher support remains very close to the significance cut off (but still not significant) in this model, and infrastructure remains significant. The student socio-economic background characteristics remain significant, with the notable exception of the crowded predictor.

Table 4.17: 2013 Grade 5 Mathematics

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	185.9***	1.2	187.6***	1.2	187.5***	1.2	187.3***	1.2	187.2***	1.3	187.3***	1.3
Wealth			-5.7***	.73	-5.7***	.73	-5.3***	.81	-5.7***	.85	-5.6***	.85
Crowded			1.2**	.42	1.2**	.42	.9*	.47	.7	.49	.7	.49
Mother Edu			4.1***	.25	4.2***	.25	4.2***	.28	4.2***	.29	4.3***	.29
Father Edu			1.7***	.23	1.7***	.23	1.5***	.26	1.6***	.27	1.6***	.27
Infra					2.6**	1.0	2.7**	1.1	2.6*	1.3	2.7*	1.3
Textbooks							-.5	1.4	.3	1.5	.2	1.5
Teacher Supp									1.4 (almost)	.82	1.4 (almost)	.82
Teacher Edu											1.1*	.47
χ^2			196041.39**		4213.75**		31068.71**		15511.16**		5.31*	
R^2_L			0.49**		0.48**		0.40**		0.35**		0.35*	

* $p < .05$ ** $p < .01$ *** $p < .001$

n = 46,361

ICC = 20.1% with 10.5% at Level 3

2013 Grade 9 Portuguese

Model 1: Null Model

The ICC of this model is reported as 13.7% with 5.2% of the variation attributable to the school district level. These values indicate that building a multilevel model is warranted. The values also indicate a continued trend of increasing amounts of variance attributable to the school district level. The -2LL of the null model is reported as 350836.93 and this value will be used to judge the fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is reported as 238224.02 which indicates that this model is a better fit for the data than the null model. This change is significant, χ^2 (4) = 112612.91, p = <.01. In keeping with the trends previously noted, both the wealth and the crowded measures are declining in strength, predicting a 3.1 point lower student score for students with lower wealth values, and a 1 point higher score for students with less crowded homes. Wealth gains some strength in over the subsequent models, predicting a score 3.9 points lower in the final model. Crowded fluctuates only very slightly over the models. Again, the gap in strength between mothers and fathers education at the grade 8/9 level is quite small, with mothers education predicting a score 3 points higher and father education predicting a score 2.8 points higher. All of the student socio-economic background factors remain significant over the subsequent models.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is reported as 230997.16 indicating that this model is a better fit for the data than the models before it. This change is significant, χ^2 (1) = 7226.86, p = <.01. Infrastructure is a significant predictor of student scores in this model, predicting a score 2.8 point s higher when infrastructure is increased in quantity and quality. Infrastructure is significant in model 3 and model 4, but is not significant in the final two models for the grade 9 Portuguese Prova Brasil assessment in 2013. Infrastructure was also significant in the 2011 model of grade 9 Portuguese.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is 173043.01 indicating that this model is abetter fit for the data than the ones before it. This change is significant, χ^2 (1) = 57954.15, p = <.01. As was the case in all previous models across years, grades, and subjects, textbooks being received in a school was not a significant predictor of student scores on this assessment.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is 150307.63 indicating that this model is a better fit for the data than the models before it. This change is significant, χ^2 (1) = 22735.38, p = <.01. Teacher support is a significant predictor of student scores on the grade 9 Prova Brasil assessment of Portuguese, predicting a 2.9 point higher score for students whose teachers have access to more and better teacher supports at their schools. Teacher support was also significant in the 2011 model of grade 9 Portuguese, although it did not appear in the 2009 or 2007 models.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 150307.26 and is therefore only a very slightly better fit for the data than the model before it. This change is not significant, χ^2 (1) = 0.37. Teacher education, unlike in the 2007 model of grade 8 Portuguese, is not a significant predictor of student scores on this assessment. Teacher support remains a significant predictor in this final model, but infrastructure has become not significant. The socio-economic background characteristics of students remain stable and significant predictors of student scores on the grade 9 assessment of Portuguese in 2013.

Table 4.18: 2013 Grade 9 Portuguese

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	223.4***	.96	225.9***	.95	226.2***	.96	226.8***	1.0	227.1***	1.1	227.1***	1.1
Wealth			-3.1***	.76	-3.3***	.77	-3.7***	.89	-3.9***	.96	-3.9***	.96
Crowded			1.0**	.41	1.1**	.42	1.2**	.48	1.2**	.52	1.2**	.52
Mother Edu			3.0***	.24	3.1***	.24	3.2***	.28	3.4***	.30	3.4***	.30
Father Edu			2.8***	.24	2.8***	.24	2.8***	.28	2.7***	.30	2.8***	.30
Infra					2.8**	.92	2.8**	1.1	1.3	1.3	1.3	1.3
Textbooks							-2.5	1.4	-2.2	1.5	-2.2	1.5
Teacher Supp									2.9**	.93	2.9**	.93
Teacher Edu											.27	.45
χ^2			112612.91**		7226.86**		57954.15**		22735.38**		0.37	
R^2_L			0.68**		0.66**		0.49**		0.43**		0.43	

* $p < .05$ ** $p < .01$ *** $p < .001$

n = 47,585

ICC = 13.7% with 5.2% at Level 3

2013 Grade 9 Mathematics

Model 1: Null Model

The ICC of this model is reported as 16.2%, with 5.9% of the variance attributable to the school district level. These values suggest that building a multilevel model is warranted. As previously noted, these values indicate that over the four years of Prova Brasil data examined by this study, the amount of variance attributable to the school district level is increasing. The -2LL of this model is reported as 347090.02 and this value will be used to judge the model fit of subsequent models.

Model 2: Controlling or Student Socio-Economic Background Characteristics

The Δ-2LL of this model is reported as 235520.43 indicating that this model is a better fit for the data than the null model. This change is significant, χ^2 (4) = 111569.59, p = <.01. Interestingly, neither wealth nor crowded are significant predictors of student scores on the grade 9 assessment of mathematics in 2013. This highlights a trend already observed in the data; the significance and strength of the material wealth of students is decreasing over time, especially at the grade 8/9 level, and particularly in mathematics. It is noted that crowded is a significant predictor in Model 2, predicting a student score 0.8 points higher as the crowdedness of a student's homes decreases, but the significance does not carry past this model. Mothers education and fathers education, on the other hand, continue to be significant and stable predictors of student scores. Mothers education predicts a score 3.2 points higher, increasing to 3.6 points by the final model, and fathers education predicts a score 2.1 points higher. The gap between the strength of mothers and fathers education is larger in this model than in the grade 8/9 mathematics models in 2007, 2009, and 2011.

Model 3: Adding School Resources: Infrastructure

The Δ-2LL of this model is 228378.27 which indicates that this model is a better fit for the data than the models before it. This change is significant, χ^2 (1) = 7142.16, p = <.01. Infrastructure is a significant predictor of student scores in this model and in Model 4, predicting a score 2.8 and 3.3 points higher where infrastructure is higher in quantity and quality. In Model 5 and Model 6, however, infrastructure loses its significance, dipping below the significance cut off to $p < 0.9$. Infrastructure was also a significant predictor in the 2011 model for grade 9 mathematics.

Model 4: Adding School Resources: Textbooks

The Δ-2LL of this model is 171170.67 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 57207.60, p = <.01. As is the case in all of the other models across years, grades, and subjects, textbooks being received by the school is not a significant predictor of student scores on the grade 9 Prova Brasil assessment of mathematics.

Model 5: Adding School Resources: Teacher Supports

The Δ-2LL of this model is reported as 148713.77 indicating that this model is a better fit for the data than the ones before it. This change is significant, χ^2 (1) = 22456.90, p = <.01. Teacher support is a significant predictor of student scores on this assessment, predicting a score 2.4 points higher where teacher supports are available in greater quantity and quality. Teacher support was also a significant predictor in the 2011 grade 9 model for mathematics.

Model 6: Adding Teacher Qualification: Education Level

The Δ-2LL of this model is reported as 148713.56 indicating that this model is a slightly better fit for the data than the model before it. This change is not significant, χ^2 (1) = 0.21. Unlike the 2011 and 2007 models for grade 8/9 mathematics, teacher education is not a significant predictor of student scores on the grade 9 assessment of mathematics in 2013. Teacher support continues to be a significant predictor but infrastructure has dropped below the significance cut off in this model. Neither wealth nor crowded are significant predictors of student scores in this model, but mothers education and fathers education are.

Table 4.19: 2013 Grade 9 Mathematics

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Variable	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.	β	S.E.
Intercept	228.3***	.98	231.0***	.98	231.4***	.99	232.1***	1.1	232.5***	1.1	232.4***	1.1
Wealth			-.9	.71	-1.2	.73	-1.1	.84	-1.2	.91	-1.2	.91
Crowded			.8*	.39	.9	.39	.66	.46	.7	.49	.7	.49
Mother Edu			3.2***	.23	3.3***	.23	3.6***	.27	3.6***	.29	3.6***	.29
Father Edu			2.1***	.22	2.1***	.23	2.1***	.26	2.0***	.28	2.0***	.28
Infra					2.8**	.93	3.3**	1.1	2.4	1.4	2.3	1.4
Textbooks							-2.0	1.5	-1.4	1.6	-1.4	1.6
Teacher Supp									2.4**	.99	2.4**	.99
Teacher Edu											.2	.46
χ^2			111569.59**		7142.16**		57207.60**		22456.90**		0.21	
R^2_L			.68*		.66*		.49*		.42*		.43*	

* $p < .05$ **$p < .01$ ***$p < .001$

n = 47,585

ICC = 16.2% with 5.9% at Level 3

4.3 *Summary of Phase I Findings*

The central research question of this study is: How have recent Brazilian educational policies related to increased resources and teacher qualification (i.e. FUNDEF, FUNDEB and the National Policy on Teacher Education) affected schools and students' educational outcomes in Paraiba, Brazil? The study employs a dynamic approach to school improvement (DASI) model to gauge the impacts of resource and teacher qualification policies and their implementation - via the core DASI concepts of *frequency*, *focus*, *stage*, *quality*, and *differentiation* (see Creemers & Kyriakides, 2006) on schools and on students' Portuguese and mathematics outcomes. Phase I of the study is an examination of the *frequency* of resources and their impact on students' outcomes on the Prova Brasil assessments of Portuguese and mathematics. Phase I uses a quantitative methodology, specifically multivariate multilevel models, to examine these relationships. The research questions that Phase I is designed to answer, in pursuit of evidence with which to address the central research question, are:

1) What are the relationships between the *frequency* (DASI) of school resource variables and students' attainment on the Prova Brasil assessment?
    a) Are there specific school resource variables that are significantly related to student attainment on the Prova Brasil assessment?
2) What are the relationships between the *frequency* (DASI) of teacher qualification variables and students' attainment on the Prova Brasil assessment?
    a) Are there specific teacher qualification variables that are significantly related to student attainment on the Prova Brasil assessment?

The results of the multilevel model analyses have identified a number of trends in the data. The socio-economic background characteristics of students are all still significant predictors of student outcomes on the Prova Brasil assessment of both Portuguese and mathematics in both grade 4/5 and grade 8/9. However, the predictors of material wealth coded as 'wealth' and 'crowded' in this study are found to have declined in importance over time, are also less important for grade 8/9 students than they are for those in grade 4/5, and are less important for mathematics outcomes than they are for Portuguese outcomes. Mothers and fathers education, in contrast, have become more important predictors over time, and the gap in strength between mothers education and fathers education is quite narrow at the grade 8/9 level, coming close to

being equal strength predictors in many models. Teacher support is the most consistent predictor of student outcomes across grades and subjects, is equally important across subjects, and is slightly more important in grade 4/5 than in grade 8/9. Teacher support is followed closely by teacher education level as the most consistent predictor of student outcomes, with teacher support found to be significant in 10 out of 16 models, and teacher education found to be significant in 8 out of 16 models. Teacher education is also equally important across subjects, and is also more important in grade 4/5 than grade 8/9. The significance of teacher education is stable across the model time points; it is just as significant in 2007 as it is in 2013. Infrastructure was often a significant predictor of student outcomes, although it is only significant in 7 of the 16 models. Infrastructure is slightly more significant for mathematics than for Portuguese, and is more significant in grades 4/5 than grades 8/9. The following sections detail and discuss the specific results for each predictor.

Wealth was a significant predictor in 15 out of 16 models. The one model in which it was not significant was for grade 9 mathematics in 2013. One of the most noticeable trends in the data overall was the declining significance and strength of the wealth predictor. Predicting a 9.1 point decrease in student scores on the Portuguese assessment for grade 4 students in 2007, and a 7.5 point decrease in student scores on the grade 4 mathematics assessment in the same year, by 2009 it predicted a 8.3 point decrease and 6.8 point decrease in grade 5 respectively. In 2011, the strength of this predictor decreased again, this time substantially, predicting only a 5.3 point decrease and a 3.7 point decrease in grade 5 Portuguese and mathematics scores respectively. In 2013, the wealth predictor stabilized predicting a 5.7 point decrease on the grade 5 assessment of Portuguese and a 5.6 point decrease in scores on the grade 5 mathematics assessment. These trends suggest that in grade 4/5 wealth is a more significant predictor of outcomes on the Portuguese assessment than on the mathematics assessment, and is generally declining in importance over the time points of this study. We see similar trends in the grade 8/9 data where in 2007 wealth predicts a 2.6 point decrease in Portuguese scores and is only significant to $p < 0.01$, and predicts only a 2.1 point decrease in grade 8 mathematics, again with the $p < 0.01$ significance. In 2009, wealth predicts a 3.2 point decrease in student scores in Portuguese, and 1.2 points in mathematics, although they both increase in significance. By 2011, the strength of this predictor in at the grade 8/9 level is further eroded to predicting a 1.4 point decrease in

Portuguese scores, and a 1.5 point decrease in mathematics scores, significant only to the $p <$ 0.05 cut off. In 2013 wealth is highly significant again, and predicts a 3.9 point decrease in scores in Portuguese, but is a non-significant predictor of mathematics scores in grade 9. Overall the data suggests that wealth is not as significant of a predictor in grade 8/9 as it is in 4/5, it is less important to mathematics scores than it is to Portuguese scores, and it is declining in strength and importance over time. When these results are viewed in light of the descriptive trends of increasing wealth of students over the four time points, it is possible that perhaps as the material conditions of students is improved over time, wealth becomes a less powerful predictor of student outcomes. This is an important conclusion in light of the results of Phase II, and in particular the discussion around the Bolsa Escola policies of the Brazilian government. This is discussed further in the Discussion chapter of this thesis (Chapter 6).

Crowded was a significant predictor in 14 out of the 16 models in this study, making it slightly less important than the wealth predictor. Like wealth, it is not as significant of a predictor in mathematics compared to Portuguese, is less significant in grade 8/9 than in grade 4/5, and it is least significant in 2013. In grade 4 in 2007, a less crowded home predicts a 4.1 point increase in students' scores on the Portuguese assessment, and an increase of 3.7 points on the mathematics assessment. In 2009 it predicts a 4.0 and 3.8 point increase in scores respectively, and in 2011 those values become 4.9 points and 4.4 points. In 2013 the strength of the crowded predictor drops significantly to predict a 1.0 point increase in grade 5 Portuguese scores and it is not a significant predictor of grade 5 mathematics scores. The trend is for the crowded predictor to remain stable over the first three time points, and then drop quite drastically in 2013. It is a consistent trend across the time points that crowded is a more significant predictor on Portuguese than on the mathematics assessment. In grade 8 in 2007, the crowded predictor is considerably weaker than in the grade 4 models, predicting a 3.1 point increase in Portuguese scores and a 2.5 point increase in mathematics scores. In 2009 these values are again lower than their grade 4 counter parts, with the grade 9 model predicting a 3.8 point increase in Portuguese scores and a 2.1 increase in mathematics scores. In 2011, the values are 3.9 and 3.6 respectively, which are values again lower than their grade 5 counterparts. In 2013 we see the significance and strength of the predictors drop again, predicting a 1.2 point increase in grade 9 Portuguese scores, and not significantly predicting grade 9 mathematics scores. Across all grade 8/9 models we see that the

crowded predictor is relatively stable over the first three time points, and then drops significantly in significance and strength in 2013. Like in grade 4/5, crowded is a significant predictor of student scores in Portuguese than in mathematics, and is a weaker predictor in grade 8/9 than it is in the grade 4/5 models. Descriptively, the crowded measure stays relatively stable over the four time points, with the 2007 and the 2013 mean values for students being quite similar. The decreasing significance of the wealth and crowded predictors in the 2013 models is an interesting finding as it suggests that a greater proportion of the variance in student scores on the assessments might be explained by school level predictors instead of the socio-economic background characteristics of students. Although the trends in that direction over years, grades, and subjects is clear, the 2013 results merit a cautious interpretation due to the smaller sample size in that year and the previously mentioned caution regarding the imputation of the data in this year.

Mothers Education is significant in all 16 of the models in this study, to the $p < 0.001$ significance cut off. The primary trends of this predictor over the four time points of this study are towards the increasing strength of the predictor over time, and the very narrow gap in the strength between the mothers education and fathers education predictors at the grade 8/9 level. In the grade 4 Portuguese and mathematics models in 2007, mothers education predicted a 2.1 point increase in student scores on the assessment. In the grade 5 2009 models, mothers education predicted a 3.9 point increase in students' scores in Portuguese and a 3.3 point increase in mathematics scores. In 2011, mothers education predicted a 2.9 point increase in students' scores in Portuguese and a 2.6 point increase in students' mathematics scores. In 2013, the predictor gains considerable strength, predicting a 4.2 point increase and a 4.3 point increase respectively. Overall the predictor gains strength over the four time points. In the grade 8/9 models we see the same trend. In the grade 8 2007 models, mothers education predicts a 2.5 point increase in students' scores in both the Portuguese and mathematics models. In the grade 9 models in 2009, mothers education predicts a 3.0 point increase in students' scores on the Portuguese assessment, and a 2.9 point increase in mathematics scores. In the 2011 models, mothers education predicted a 2.8 point increase and a 3.0 point increase respectively. In the grade 9 2013 models, mothers education predicted a 3.4 point increase in student scores on the Portuguese assessment, and a 3.6 point increase in scores on the mathematics assessment. The

grade 8/9 models mirror the trends in the grade 4/5 data wherein the predictor has become more significant over time, and, interestingly, becomes more important in mathematics than in Portuguese in 2013, in contrast to the previous years. Mothers education is roughly of equal importance in grades 4/5 and grades 8/9.

Fathers Education is significant in all 16 models in this study, to the $p < 0.001$ significance cut off. The important trends in this predictor are its narrow gap in strength between it and the mothers education predictor at the grade 8/9 level, and its greater strength at the grade 8/9 level when compared to the grade 4/5 level. In 2007, in the grade 4 models, fathers education predicted 1.2 point increase in students' scores on the Portuguese assessment, and a 0.9 point increase in scores on the mathematics assessment. In 2009 in the grade 5 models, fathers education predicted a 1.5 point and a 1.0 point increase in students' scores respectively. In 2011, it predicted a 1.3 point increase in both subject in the grade 5 models. In 2013 continued to see the general trend towards the increasing strength of the predictor where it predicts a 1.7 point increase in students' scores on the Portuguese assessment, and a 1.6 point increase in students' scores on the mathematics assessment. Overall, for the grade 4/5 models we see a clear trend towards the increasing strength of the predictor, and although there is a slight difference in the strength of the predictor in predicting Portuguese outcomes, the predictor is almost equally important for Portuguese and mathematics outcomes. In the grade 8 models of 2007, fathers education predicts a 2.5 point increase in students' scores on the Portuguese assessment, and a 2.1 point increase in students' scores on the mathematics assessment. Here we see highlighted the two primary trends of this predictor; it is almost equal in strength to the mothers education predictor, and it is a more significant predictor at the grade 8/9 level than at the 4/5 level. In 2009 the trend continues as fathers education predicts a 2.2 point increase in students' scores in both Portuguese and mathematics. In 2011 fathers education predicts a 2.3 point and a 2.0 point increase in students' score on the Portuguese and mathematics assessments respectively. In 2013 fathers education predicts a 2.8 point increase in students' scores on the Portuguese assessment and a 2.0 point increase in students' scores on the mathematics assessment. In the grade 8/9 models, fathers education does not show the growth in importance that is demonstrated in the grade 4/5 models, and we also see that the predictor predicts slightly higher student scores in the Portuguese models than in the mathematics models.

Infrastructure was a significant predictor of student outcomes in only 7 of the 16 models of this study. Where it was significant, however, it tended to predict large point differences, and the trends in the data suggest that it is a slightly more significant predictor for mathematics (4 of the 7 models in which this predictor was significant were mathematics models) than for Portuguese (3 of 7 models where it was significant), and a much ore significant predictor for grade 4/5 models (6 of the 7 models) than for the grade 8/9 models (1 of the 7). In 2007 in the grade 4 models for both Portuguese and mathematics, infrastructure was not a significant predictor of student scores. In the grade 5 models of 2009, infrastructure predicted a 1.6 point increase in students' scores on the Portuguese assessment, and 2.1 point increase in students' scores on the mathematics assessment. In both of these models, infrastructure predicted larger point differences in student scores than fathers education and was a more significant predictor in the mathematics model than in the Portuguese model, illustrating the trends noted above. In the 2011 grade 5 models, infrastructure predicted a 2.5 point increase in students' scores on the Portuguese assessment, which made it predictive of almost twice as many student assessment points as fathers education and only slightly less points than mothers education as a predictor. In the mathematics model, infrastructure predicted a 3.7 point increase in students' scores, making it predictive of greater point differences than both mothers education and fathers education, and almost as predictive as both of these predictors combined. In the 2011 grade 5 models infrastructure is again significant, predicting a 2.6 point increase in students' scores on the Portuguese assessment, and a 2.7 point increase in students' scores on the mathematics models. Again, in both models, infrastructure predicts a greater difference in student scores than fathers education. Across the grade 4/5 models we also see an overall trend towards the increasing strength of the predictor over time, for example, infrastructure was not a significant predictor in either of the 2007 models, but becomes significant in the models of the subsequent three time points. In the grade 8/9 models of 2007 and 2009, infrastructure is not a significant predictor of students' scores in either of the models. In 2011 infrastructure is significant in a number of preliminary models, however as other predictors are added, infrastructure remains significant only in the final model of mathematics where it predicts a 3.5 point increase in students' scores, making it predictive of more points than both mothers education and fathers education. In both of the grade 9 2013 models, infrastructure is not a significant predictor.

Textbooks Received was not a significant predictor of student scores in any of the 16 models of this study. The textbooks received predictor is either a poor proxy for print resources that support learning in the classroom and/or underlying concept is more complex. Perhaps a more in-depth exploration of the textbook measures by factor analysis in a further study would be able to better represent this concept. The non-significant finding of textbooks as a predictor of student scores is very interesting given the experiences of the researcher during the qualitative fieldwork and the experiences of the teachers as recorded during the interviews of this study. This finding will be discussed further, in light of the Phase II findings, in Chapter 6: Discussion.

Teacher Support was the most consistent predictor of all of the school level predictors, being significant in 10 of the 16 models of this study. Overall, teacher support is equally significant in predicting students' scores on the Portuguese and mathematics assessments (5 of the 10 significant models each), and is slightly more significant in predicting grade 4/5 scores (6 of 10 models) than in predicting 8/9 scores (4 of 10 models). In the grade 4 models of 2007, teacher support predicts a 1.4 point increase in students' scores on the Portuguese assessment, and a 2.2 point increase in students' scores on the mathematics assessment. In the 2009 grade 5 models, teacher support predicts a 1.2 point increase in students' scores on the mathematics assessment but is not a significant predictor of Portuguese scores. In the grade 5 2011 models, teacher support predicts a 1.8 point increase in students' scores in Portuguese, and a 2.4 point increase in students' scores in mathematics. In the 2013 models, teacher support predicts a 1.6 point increase in students' scores on the Portuguese assessment and is very close to, but does not quite meet, the significance cut off for the grade 5 mathematics model. Overall, a general trend of statistical significance across the two subjects was noted, with the predictor showing slightly more strength in the mathematics models when compared to the Portuguese models, but they are equal in number of significant models. In the grade 8/9 models of 2007 and 2009 teacher support is not a significant predictor of student scores on the Portuguese or on the mathematics assessments. In the grade 9 models of 2011, teacher support becomes significant in both models, predicting a 3.1 point increase in students' scores on the Portuguese assessment, and a 3.0 point increase in students' scores on the mathematics assessment. Showing a trend at the grade 8/9 level towards an increasing significance of this predictor over time, also seen in the grade 4/5

models to some extent, in the grade 9 models of 2013, teacher support predicts a 2.9 point increase in students' scores on the Portuguese assessment, and a 2.4 point increase on the mathematics assessment. The grade 8/9 models suggest that although the number of significant models is the same, at this level the predictor is slightly more significant for the Portuguese assessment than the mathematics assessment. This is in contrast to the grade 4/5 trends.

Teacher Education Level was the second most significant of the school level predictors, and was significant in 8 of the 16 models. The trends observed in this predictor are that it is equally significant in Portuguese and mathematics and is slightly more significant in grades 4/5 than it is in grades 8/9. Teacher education maintains its significance over time; it is just as significant in 2007 as it is in 2013. The 2013 data is problematic in this study. As teacher education shows gains over time, in line with the changing Brazilian policies, in 2013 the descriptive data suggests that the teacher education level drops. This seems to be unlikely given that teachers do not achieve lower degrees over time and Brazilian policies continued to increase demands on teachers in terms of their education level. For these reasons the 2013 data trends will be interpreted with great caution. In the grade 4 models of 2007 teacher education level predicts a 0.7 point increase in students scores on the Portuguese assessment but is not significant in the mathematics model. In 2009, teacher education is again significant, predicting a 1.1 and 1.0 point increase in students' scores on the Portuguese and mathematics assessments respectively. In the grade 5 models of 2011 teacher education level drops below the significance threshold and is not significant in either of these models. In 2013, despite the unlikely dip in the mean levels of teacher education levels are identified in the descriptive data, teacher education does significantly predict a 1.2 and a 1.1 point increase in students' scores on the Portuguese and mathematics assessments. In the grade 8/9 models for 2007, teacher education predicts a 0.96 point increase in students' scores in Portuguese and a 0.9 point increase in students' scores on the mathematics assessment. In the 2009 models teacher education does not significantly predict students' scores on either the Portuguese or the mathematics assessments. In the 2011 grade 5 models, teacher education comes very close to but falls just short of significance for the Portuguese model. It does, however, significantly predict a 1.7 point increase in student scores on the mathematics assessment. In the 2013 grade 9 models, teacher education does significantly predict student scores on either the Portuguese or the mathematics assessment.

School District Level (Level 3) Variation, almost without exception, increased over the four time points for all subjects and grades. This is an important finding given the decreasing significance of socio-economic factors (other than mothers and fathers education) over time, and the increasing significance and amount of resources in schools (with the notable exception of the 2013 data). It is possible to suggest, given these trends, that as more resources arrive in schools, a disparity could be growing between school districts in their distribution of these resources. This is an important finding in light of the Phase II interviews wherein teachers have indicated that a disparity *is* growing between districts that appears to depend on the administration of that school district and their allocation of resources in schools. This is important because as the socio-economic background conditions of students become less significant as predictors, and as school level resources become more significant, disparities between school districts has the potential to create disparities between groups of students. This is an interesting trend given the results of Phase II of this study, and will be discussed further in Chapter 6: Discussion.

When all of the results of the analyses are considered, it is possible to suggest that as student socio-economic background characteristic predictors weaken overall over the four time points, as mean student socio-economic conditions improve descriptively, mothers and fathers education predictors grow in strength and/or significance. School level predictors, over the four time points of the study, gain in significance and/or strength. It is also noted that the amount of variation in student scores on the assessments becomes increasingly attributable to the school district (level 3). It is tentatively suggested, based on these trends in the data, that perhaps as socio-economic background characteristics conditions improve, school resources like infrastructure, teacher support, and teacher education levels begin to exert more influence. Perhaps it is plausible that as extremely low socio-economic conditions improve over time, and school results on the Prova Brasil assessment improve over time concurrently, school becomes more demanding, requires more resources and more educated teachers, and at the same time, home support like mothers and fathers education level also becomes more significant.

There are a few major limitations of the models presented in this study. The first is that the mean prior attainment of students in each school is not controlled for over the four time points, thus a measure of school change is not studied. Unfortunately, the removal of schools that did not

appear in the data set at all four time points left the researcher with a sample size two-thirds smaller. Descriptive analysis of the smaller sample, containing only schools appearing in all four time points, revealed a tendency for the schools to be larger, more wealthy, and to have more resources than the sample that contained all schools in all years. As the purpose of this study is to investigate the role of resources that predict student outcomes over time, the larger sample and more representative school sample was retained and therefore prior attainment at the school level was not be controlled in the multilevel model presented here. Another major limitation of this study is the 2013 data which appeared, especially with regard to the teacher education level data, to be at odds with the trends in previous years. The 2013 data should be interpreted with caution due to their inconsistencies with trends in previous years. Finally, a suggestion for the improvement of future models would be to include the exploration of print resources, like textbooks, using factor analysis or structural equation modelling in order to develop a better indicator of these classroom resources.

Table 4.20 Summary of Phase I Final Model (Model 6) Findings

	Total		Port.		Math.		Gr 4/5		Gr8/9		2007		2009		2011		2013	
Variable	*sig*	*ns*	*sig*	*ns*	*sig*	*ns*	*sig*	*ns*	*sig*	*ns*	*sig*	*ns*	*sig*	*ns*	*sig*	*ns*	*sig*	*ns*
Intercept	16	0	8	0	8	0	8	0	8	0	4	0	4	0	4	0	4	0
Wealth	15	1	8	0	7	1	8	0	7	1	4	0	4	0	4	0	3	1
Crowded	14	2	8	0	6	2	7	1	7	1	4	0	4	0	4	0	2	2
Mother Edu	16	0	8	0	8	0	8	0	8	0	4	0	4	0	4	0	4	0
Father Edu	16	0	8	0	8	0	8	0	8	0	4	0	4	0	4	0	4	0
Infrastructure	7	9	3	5	4	4	6	2	1	7	0	4	2	2	3	1	2	2
Textbooks	0	16	0	8	0	8	0	8	0	8	0	4	0	4	0	4	0	4
Teacher Supp	10	6	5	3	5	3	6	2	4	4	2	2	1	3	4	0	3	1
Teacher Edu	8	8	4	4	4	4	5	3	3	5	3	1	2	2	1	3	2	2

Chapter 5: Phase II Qualitative Findings

Chapters 1 and 2 detailed the empirical and contextual literature that is the basis of this study and Chapter 3 articulated the philosophical, theoretical and methodological approach of this study. The purpose of this chapter is to use the data collected via interview during fieldwork undertaken in July and August 2015 to address the research questions and main aims of this study. Section 5.1 outlines the analytical processes of this study including back translation, code book development, and re-coding for reliability. Sections 5.2 to 5.5 present the findings and analysis of the interview data organized by research question and by DASI model feature.

The aim of this second phase of the study is to examine the effects of Brazilian educational policies that have increased funding for school resources and teacher qualification on students' Portuguese and mathematics achievement and *how these policies have impacted schools from the perspectives of teachers teaching in Paraiba*. The central research question that guides this study is: How have recent Brazilian educational policies related to increased resources and teacher qualification (i.e. FUNDEF, FUNDEB and the National Policy on Teacher Education) affected schools and students' educational outcomes in Paraiba, Brazil? Phase II of this study focuses on understanding how changes in educational resource and teacher qualification policies have been implemented and are experienced by teachers in schools. The expectation of conducting the Phase II qualitative strand is that it will enable a close examination of how these changes are affecting schools via the perspectives and experiences of teachers in the classroom, thereby providing a more holistic picture of how policies are implemented and how the resources springing from these policies are affecting students, their environments, and ultimately, student achievements.

5.1 *Analytical Process*

This section outlines the steps taken in the analysis of the qualitative data in this study. Section 5.1 illustrates the process of back translation, coding for translation reliability, and presents the results of this analysis. Section 5.2 articulates the processes of code development and coding process including re-coding by a peer researcher to test for coding reliability.

5.1.1 *Translation and Back Translation*

Brazilian Portuguese is not the first language of the researcher and therefore a transparent and rigorous translation and back translation process is of particular importance to this study. All 16 interviews were conducted entirely in Brazilian Portuguese with teachers whose either primary or sole language was Portuguese. Only a small number of teachers interviewed had any ability to communicate in English and where this was possible, in two cases, interviews continued to be in Portuguese as the interviewees' English was usually basic in level. In order to address deficiencies in the interviewer's language skills and in efforts to avoid misinterpretation and misrepresentation of the interviewee's words and meanings, the interviewer sought to clarify meanings and summarize viewpoints for verification by the interviewees. The interviewer always asked for clarification or repetition if there were words that were not understood, and if ambient noises were interfering with hearing or understanding. Often during the interviews, the interviewer would summarize points of view or conversation and ask the interviewees if this summary approached their meanings. After the interviews the researcher engaged in peer debriefing to clarify the researcher's understandings and then partially translated and transcribed the interviews on the evening that the interviews took place. This partial translation and transcription served many purposes including reducing later workload, informing future interviews, ensuring that questions asked were eliciting responses that were likely to inform the investigation, and finally, as relates to translation, the interviewer checked for understanding, reviewed important vocabulary, worked on pronunciation, and began translation work.

After the fieldwork concluded, all interviews were translated and transcribed in full in preparation for coding. After all interviews had been translated and transcribed by the researcher, an independent third party whose first language is Brazilian Portuguese but who is also fluent in English, was asked to translate 10% of the interview transcription back into Portuguese, which was 9 pages picked random from the 85 pages of translated transcriptions. Upon completion of the back translation, the researcher took the original tapes of the interviews and compared them with the back translation. The researcher coded the back translated interviews for meaning or misconstruction of meaning. Specifically, the interviews were coded as 'not misconstrued', 'partially misconstrued', and 'misconstrued'. When there were no differences between the words on the tape and the back-translated interviews, or when words

differed only very slightly and there was no impact on the meaning of the interviewee's words, the text was coded as 'not misconstrued'. If there were some differences between the words on the tape and the back translated transcriptions, or if some words were missed or in a different order but meaning was not substantially impaired, the text was coded as 'partially misconstrued'. If the back translated transcriptions varied substantially from the tapes and/or the meaning of the interviewee was entirely misrepresented, the text was coded as 'misconstrued'. Samples of the back translation coding can be found in Appendix XI.

After analysis, the translation and transcription of the 16 interviews conducted during fieldwork was determined to be valid. Eighty-seven percent of the 9 pages of translated and transcribed of interviews was coded as 'not misconstrued'. This meant that the majority of the text was exactly or almost exactly identical to the taped interviews. Thirteen percent of the translation was determined to be 'partially misconstrued' and none of the translation was coded as 'misconstrued'. There were five sections of the translated interviews that made up the 13% of the translation that was determined to be partially misconstrued in meaning. In 4 out of 5 of these sections meaning was partially misconstrued due to missing words. In each of these cases either ambient noise during the interview, or interviewees speaking on top of each other obstructed the ability of the researcher to capture each of the words of the interviewees. Upon reflection and review of these four sections, it was determined that the researcher was able to capture the meaning of the interviewees despite some missing words usually through summarization of the interviewees' meaning. It is acknowledged by the researcher that due to this process some nuance and precise meaning may have been lost, therefore the areas were coded as 'partially misconstrued' to reflect this loss of data. In the remaining 1 of 5 sections that was coded as 'partially misconstrued', the wording of the translated transcription was determined to be different from the wording of the interviewees on the taped interviews. Upon reflection and review of this section of the interview transcription with reference to the recorded interview, it was determined by the researcher that despite some differences in wording, the meaning of the interviewee was captured. To reflect these differences in wording, and to acknowledge the possibility of loss of data, the section was coded as 'partially misconstrued'. Overall, due to the limited number of instances where the back translated transcriptions differed from the taped interview, and taking into account the very limited loss of wording and meaning, the back

translations, and therefore the translation and transcription by the researcher, was determined to be valid.

5.1.2 *Coding*

Coding, and the development of codes, began at the time of the fieldwork. Based on the DASI core concepts of *focus*, *stage*, *quality*, and *differentiation*, initial translation and transcription of interviews during fieldwork was evaluated by the researcher to determine if the interview schedule was working to elicit responses from interviewees that were likely to address the research questions. To determine if this was occurring, some initial coding was developed and it was determined by the researcher that the questions were sufficiently addressing the research questions via the theoretical lens of the study. Coding began in earnest after the interviews had been fully translated, transcribed, and back translated for validity. The researcher began coding with an interview most likely to yield a lot of data due to its length and the depth of conversation. An initial coding of this interview was completed and each DASI core concept for both resources and teacher qualification was found and coded. The researcher then summarized each code, indicating the kinds of answers that met the criteria for each code. This articulated and clarified each code and became the Code Book for the research project. Table 5.1 displays the Code Book used in the analysis of these interviews. The interview was then re-coded using the Code Book as a reference, and then the remaining interviews were coded using the Code Book.

Table 5.1 Code Book

Context			
CODE	**WHAT IT IS**	**WHAT IT LOOKS LIKE**	**REFLECTION**
Capture	Teacher perceptions on the ability of Prova Brasil to reflect the conditions of schools. The researcher intended it as a lens from which to consider the *frequency* of resources through the quantitative investigation. From the perspectives of teachers, are these numbers/surveys able to capture the conditions in schools?	-'It requires more organization for the statistics to be closer to reality' -'yeah I think it can but it's just one parameter, but looking at the statistics looking at the data there is no way to say of course that it's complete or that it's the complete picture'	'Capture' is straightforward to code. It is a question directly asked by the researcher and teachers appear to have strong, informed opinions on the subject. Having this contextual information helps to consider the circumstances under which Prova Brasil data is collected, distributes, and used.
Politics	Teacher perceptions and experiences with how Prova Brasil is used and perceived in schools, in communities, in Brazil. The purpose of the question was to gather information on how teachers perceived the results of Prova Brasil, the importance of the test, and how it affected students and teaching practices.	-'Yes. So I actually spend a day talking about the importance of the test, it's for the school to discover where it is at on a scale of mathematics, and so it's important because students can see how they measure up to other students for the purpose of university entrance, and also how the school is valued, against other schools and within the municipality, and it gives credibility to the school and students' -'I think that the results don't actually reflect the level of the students. It's just one test, for all of Brazil, and here we work with kids whose families do not have the same socio-economic background as those students from the South here in the North-East. They make one unified test and throw them at the schools and want to see the same results. And I think it's unfair. The way that it's done. It should be done by region'	This code showed more diversity in responses. Some teachers spoke of how students perceived the test, some spoke about how the test can or cannot be used by students, schools, and educational policy makers. Many teachers spoke about how the test impacts their teaching, and how students react to it. Many comments were made on its 'fairness' and applicability.

Resources			
CODE	**WHAT IT IS**	**WHAT IT LOOKS LIKE**	**REFLECTION**
Focus	*Focus* is broken down into two sub-categories: Specificity and Purpose. Purpose is how the resources relate to policy or outcome goal and Specificity is how the resource is used or supported in practice. The researcher is looking at how the resource is being used, and how it is supposed to meet an educational outcome or fill an acknowledged gap in classrooms/schools.	-'In this classroom here, we have beautiful mathematics resources, right? And sometimes they come in here to learn. If I'm talking about polygons, well they're there! Right? So I say "polygon" and there they are. And we have books too to support it' - 'Computers, projectors, to be able to explain things better. Math teachers, for example when they give a test and they want to go over the answer, it would be important to have these. And if all the classrooms could be adapted for this it would be great. Right now we only have a few locked up for the whole school. So if you need it you go there and it's being used already and you can't have it. Do you understand? The projector is like this. So it would be nice to have one in each classroom, that would be much better. Right, you think?'	*Focus* was difficult to code and appeared throughout interviews in varied forms. In coding *Focus* the researcher looked for ways the teacher was using resources, observations they made about how resources had become available and what they were being used for (if they were being used), and how this might meet with an intended educational policy goal.
Stage	*Stage* is broken down into the time the resource has been present in the school and the continued support of the resource over time. This code is intended to determine how long resources have been in place and how the resource has changed, ebbed and flowed, over time.	- 'So there's money for these projects so much money for the projects, and it gets lost because there's no real investment in education. Consistent investment' - Of course the computers ran into some technical difficulties, so the result was that once again the computer labs were locked up again. We had no access because they were broken, or they were scared of breaking more of them. They need a tech specialist to work in these labs, to take care of the computers, keep an eye on things. Students sometimes ran into issues on sites, didn't know how to do something, and sometimes, even they weren't sure how to even turn on the computer. So these computer labs are just an optical illusion. Today, the computer lab at the other school is still closed and locked'	Although DASI distinguishes between the time span of the resource and the continued support for the resources, most of the time teachers addressed these issues in the same breath. It is also notable that *Stage* was often coded with Specificity (*Focus*) and *Quality* as questions of continued support often lead into discussions of how the resource is used and the quality of the resource itself.
Quality	*Quality* refers to the specific properties of the resource – if it is a valuable resource, what about it is valuable, whether teachers use it or not.	- 'In the quality of resources, I had seen big changes. Up-to-date materials, in materials there been great changes' - 'Here for example, we have a big school we have a lot of qualifications, but the resources do not come as we want them to. We have big rooms, but we don't have infrastructure to teach with. When the federal government sent books, it was not quite right. For example, some books came like for Portuguese and mathematics but history and science books did not come. Most students will receive their books from the school, and we do have computers, but the Internet doesn't work'	*Quality* was the easiest of the DASI concepts to code and was also the most prevalent. Teachers appeared eager and knowledgeable on the subject. All had opinions on the quality of resources, teacher qualification programs and requirements. It is noted by the researcher that quality of resources and support varied widely between sites and individuals.

Differentiation	*Differentiation* is how resources meet a need and how the resource is embedded into teacher practice in classrooms and schools across subjects. The researcher used this code to observe how teachers used resources in their classrooms and schools, and also to hear what resources were desired but not available (i.e. not meeting a need).	- 'But now we have a lot of computers but we have too many students in the class to use them. They are interested in learning on the computer, we have a room with 18 computers that work but none of them have Internet. When I take students there, and I want teach them how to search a word on the Internet, how to put on accents, how to use punctuation, but it doesn't work because the Internet doesn't work' - 'I think the resources we still need are technology based ones. It's a question of audio-visual resources. Like documentaries. See? And then you have a chance to give a more dynamic lesson, or to make a presentation on an original theme. Then the "interest" factor is much better, the students concentrate more, they think it's a novelty'	*Differentiation* was the most difficult of the DASI concepts to code because it overlapped with *Focus* and *Quality* on numerous occasions. As a result, the researcher tended to code how needs wither either being met by resources, or not met by resources and focused on how teachers were using the resources in classrooms and schools.

Teacher Qualification			
CODE	**WHAT IT IS**	**WHAT IT LOOKS LIKE**	**REFLECTION**
Focus	*Focus* is broken down into two sub-categories: Specificity and Purpose. Purpose is how teacher qualifications relate to policy or outcome goal and Specificity is how the teacher qualification policy is used or supported in practice. The researcher is looking at how teacher qualification policies are impacting schools and classrooms, how programs are being used or not used, and how they are meeting an educational outcome or filling an acknowledged gap in classrooms/schools.	-'Absolutely, when you're certified in the area that you're teaching, the lessons are certainly different' - 'The level/qualification of teachers has improved a lot, it's now got all the primary grades and all the way through middle school. Before anyone who had graduated middle school could teach middle school, but not now, not anymore' - 'For example, there is a teacher of science giving a math lesson because there isn't a math teacher available in the area. They aren't educated in math'	This code was relatively simple and straightforward. Teachers understood teacher qualification policies and how what was required of them was related to educational policy and needs in the classroom. They were also well aware of routes and programs for them to engage in.
Stage	*Stage* is broken down into the time teacher qualification policies have been present in the school and the continued support of the teacher qualification upgrades over time. This code is intended to determine how long the policies have been in place and how the policies have changed over time.	- 'This year we saw two qualification changes required. And so now it's really starting' - 'We used only have only one course per year to improve our qualifications. Now there is more' - 'It's only 200. But all the teachers are, there are teachers that thought it was good, you know? But, it was a really short program. It looks like it's over. It's not here anymore'	This was a straightforward code. Teachers appeared to be well aware of changing policies, current program offerings, and past programs offerings and could easily comment on changes over time and support over time.

Quality	*Quality* refers to the specific properties of the teacher education policies and programs – if it is a valuable program, what about it is valuable, and whether teachers use it or not.	- 'It is the de-professionalization. It doesn't work, it is not professional. So today you can see for example the lack of salary…Where is the motivation? So you have a situation of resources importantly you don't have, you have precarious amounts of resources and teachers aren't treated as professionals' - 'I mean because I'm not against online distance learning because this is an economic measure to save money. But the thing you need is time to do this. This is what they're doing, the professionals have to keep working and then on the weekends and holidays they study' - 'yes there are. Yes there are great courses. There are definitely courses. They even have doctorate programs'	Again, *Quality* was a straightforward code. Teachers readily spoke of changing qualifications, availability and quality of teacher qualification programs, and their general thoughts on Teacher Qualification policies. The most difficult part of coding *Quality* was its repeated overlap with *Focus* as teachers often spoke about the quality of the program and how they used it in their practice.
Differentiation	*Differentiation* is how teacher qualification policies and programs meet a need and how the qualification policies and programs are embedded into teacher practice in classrooms and schools. The researcher used this code to observe how teachers used qualification programs (i.e. applied their knowledge) in their classrooms and schools, and also to hear what programs and policies were desired but not available (not meeting a need).	- 'And also the qualification support was primarily for high school teachers. A national program across grades did not come out. And they put the money in career schools. So we don't have a plan for the schools because the government took it away. So we are fighting for revision of this plan and to bring a plan back again' - 'Now JP always had to have a certain level of qualification, outside the city is much more relaxed. But this year we have increased the qualification you need to teach even in the outlying areas'	Unlike coding *Differentiation* in Resources, teachers more easily spoke of how teacher qualification programs met needs and how they could embed their knowledge and these programs into their lives and into their classrooms. However, when speaking of how teachers embedded their training in their practice across subjects, there was significant overlap in the coding with both *Quality* and *Focus*.

After the interviews were coded, the researcher trained a peer researcher[5] in the use of the Code Book for the coding of the interviews. The peer researcher then re-coded one full interview, representative of 10% of the interview data, in order for the researcher to assess the reliability and validity of the codes. The results of the re-coding show that the peer researcher was able to replicate the coding with a high degree of accuracy (J. Cohen, 1968). The teacher background variables of experience, subjects taught, grades taught, and qualifications were coded with a Cohen's kappa coefficient of between 0.899 and 1.0. This is not surprising given the structure of the interview schedule and the clarity of the questions. The context variables of 'capture' and 'politics' were accurately coded with a kappa coefficient of 0.72 (capture) and 0.39 (politics). There was also agreement between researchers on coding related to school resources with most agreement levels ranging between a kappa coefficient of 0.7 and 1.0. The only exception to this agreement was within the 'continuity' code where the researcher saw the potential of the interviewee's statement "here yes … there no not at all it hasn't changed at all" to fall into the continuity code and the peer researcher did not. This resulted in a kappa coefficient of 0 for the code as this was the only 'continuity' code found in the interview. There was also some disagreement on the code 'meeting need' wherein the researcher found the interviewee's statement "I can barely find a room and the room has no closet in it to hold anything, it's really just bad there" a candidate for this code and the peer researcher did not. This resulted in a kappa coefficient of 0.15. The coding agreement between the researcher and the peer researcher for the teacher qualification variables was moderate to high in all coding areas. The coding agreement ranges from a kappa coefficient of 0.46 to 0.99. Neither the 'time span' nor the 'purpose' codes were found in this interview by either researcher. A detailed table of the kappa coefficients and a sample of the coded interview can be found in Appendix XII.

5.2 *Findings*

This section presents the results of the qualitative data analysis of the teacher interviews and addresses the overall research question for Phase II: What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of school resource and teacher qualification policy implementation and their effects on schools and students?

[5] The Peer Researcher is Dale Martelli, a PhD candidate at Simon Fraser University in Canada.

The purpose of Phase II of this study is to examine the perceptions and experiences of teachers with Brazilian educational policies, their implementation, and effects on schools and student learning. The results are reported by research sub-question, and then by DASI model core concept. Appendix XIII provides a sample of the high coding density of the transcripts. The interviewee quotes chosen to represent each code in the findings chapter sections of 5.2, 5.3, and 5.4 were chosen on the basis of their appropriateness in representing the codes, ability to demonstrate a range of viewpoints, and without exactly repeating the other quotes chosen, represent the frequency or consistency of viewpoints/experiences shared by a large number of teachers across interviews. A summary of the extent to which each code was represented in the text of this findings chapter can be found in Appendix XV.

5.2.1 *Context*

All of the teachers interviewed in this study were worried about the applicability of Prova Brasil assessments and their use by government to properly capture and display student learning. Their concerns centered around the lack of contextualization of the data and their feeling that such data could not be used to support teaching or school improvement purposes. Despite their reservations, the teachers interviewed unanimously agreed that the Prova Brasil assessment should be taken seriously and they all worked towards test preparation in their classrooms over the course of the testing years. Some teachers believed that the quality of the data could be improved if the tests were made more relevant to their students. As Prova Brasil currently has no feedback process for students, many teachers believe that students are reluctant to complete the test and this affects the extent to which the assessment can properly measure student achievement. Over the course of the interviews many teachers suggested that Prova Brasil could be a useful tool, able to capture conditions of schools and student learning, but it would require greater transparency, participation, discussion with both teachers and students regarding test development and data management in order to become so. Finally, one area of discussion during many of the interviews, unforeseen by the researcher and not part of the interview schedule, but a policy of major concern to the teachers interviewed, was Bolsa Escola. Unprompted, the majority of teachers made a point of discussing this policy with the researcher over the course of the interview and expressed grave concerns over how the policy had changed the climate of schools and the conditions of the classroom. As this policy was of consistent concern to the

teachers interviewed, the researcher has included a discussion of Bolsa Escola as an integral part of the context and background of the interviews and this study.

Of primary concern to teachers regarding the ability of Prova Brasil to capture student learning was that the data of Prova Brasil, when published and circulated, is raw data. This was of concern to teachers for two reasons. First, the data is displayed as averages, and no individual feedback is given to students or teachers. No information on errors or paths to improvement is given. The data, therefore, is deemed 'unhelpful' to teachers. Further, it was suggested that this lack of transparency and data management made the test about evaluation only, not about improvement or progress. For example, a teacher commented that the data as it is collected, organized, and distributed now cannot show a complete picture of what is really happening in schools:

Yeah I think it can but it's just one parameter, but looking at the statistics looking at the data there is no way to say of course that it's complete or that it's the complete picture.
-Mr. Red: Male, Portuguese teacher, 25 years experience

The same teacher further wondered at how data was being managed and presented, referring to how he felt the data was not representative of reality:

It's weird sometimes schools that you know are at the bottom end up at the top.
-Mr. Red

Teachers felt that the data did not take account of regional and local differences in socio-economic conditions, educational history, and other micro-realities. In particular, teachers referenced the disadvantages, socio-economically, historically, and currently, of the north-east of Brazil when compared to the more developed south of Brazil:

*Here, in this class, I am thinking about, and I generally do it this way, they are doing activities from the Prova Brasil. Because Prova Brasil is not our reality. You know that we are here, in ***, in the municipality of *** in the state of ***, in the state of Paraiba. And these tests, they are for the South, right? The reality there is just totally different there than here.*
-Ms. Scarlett: Female, Portuguese and math teacher, 18 years experience

Well from what I've seen, the test is called "Prova Brasil", Prova Brasil, so it's national. And I can't pretend to know if the statistics are useful for planning education nationally. Who participates? It's the teachers who come from all over, teachers who are prepared for Prova Brasil, on top of being responsible for basic education, on top of the books we go through, understand? Do they understand all of the difficulties of each school? We know they don't.

-Ms. White: Female, Portuguese and math teacher, 19 years experience

I think that the results don't actually reflect the level of the students. It's just one test, for all of Brazil, and here we work with kids whose families do not have the same socio-economic background as those students from the South here in the North-East. They make one unified test and throw them at the schools and want to see the same results. And I think it's unfair. The way that it's done. It should be done by region.

-Ms. Taupe: Female, math teacher, 16 years experience

Teachers suggested that perhaps Prova Brasil could be effective as a simple diagnostic tool, if the data was presented and published differently. An understanding or acknowledgement of the context in which the data was collected, and data that could be used by teachers and students to pinpoint weaknesses and areas to be improved, would make the data more meaningful and relevant. The data as prepared and presented now is perceived to be a way of supporting a simple ranking system of schools and, as such, is perceived to be punitive to teachers and schools serving disadvantaged communities.

Despite these reservations, teachers were both clear and consistent in their view of the test – that Prova Brasil is to be taken seriously and students are to be prepared to take the test, despite how far from their classroom reality they felt it may be and despite their opinion that time could be better spent on other activities:

And so I have to pass this work to the kids, work with these kids, do these tests, and see if on the tests they actually do something. Because in our reality, it's very difficult.

-Ms. Scarlett

Another concern regarding the data of Prova Brasil was the lack of feedback and participation of students in the test. Teachers felt that because there was no feedback mechanism for students, that the importance of the test and the importance of completing the test was often lost on students. Teachers connected the students' reluctance to complete the test with both the difficulty of Prova Brasil data in capturing student achievement levels, and also the inability of

the test to provide relevant feedback for students and teachers that could lead to the improvement of education in Brazil. For example, teachers explained:

Yes, exactly. The test isn't worth anything. There's no incentive for them to do it. So why would they take it and do the mathematics?

-Mr. Yellow: Male, Portuguese teacher, 6 years experience

They just don't want to do it. They just don't bother with it. They don't have that kind of concentration to do a test to evaluate their level.

-Ms. Taupe

It's not about learning. They come here with no other stimulus to do the activities here, and when that test comes, they just leave. They aren't worried, they know it doesn't count.

-Ms. Taupe

Often, this discussion of students not wanting to complete the Prova Brasil test, and the learning conditions in schools, lead to a discussion of Bolsa Escola. Although this line of questioning was not originally envisioned by the researcher and was not a part of the interview schedule, it was a point of discussion in almost every interview. At no point during the fieldwork did the researcher add Bolsa Escola discussions to the interview schedule, and the pattern was only fully noted upon the coding of the interview transcripts. Nonetheless, as an important Brazilian policy affecting education and particularly affecting schools and learning conditions in the classrooms, and an issue of apparent important to teachers, it is included in this discussion of context.

Teachers interviewed in this study were overwhelmingly critical of Bolsa Escola. Teachers felt that the policy had negatively affected school climate and had devalued education in general. They felt that if school was difficult to go to, if it was a privilege as it had been when they were in school, then it would be valued. Attendance wherein families were paid to have their children attend school meant that children who did not want to be in school and families that were perceived to not value or support education, were forced into a classroom but were unwilling to perform there. Not a single teacher interviewed felt that the policy was a positive one despite acknowledging that it had dramatically improved school attendance across the country. For example, teachers explained:

Oh yeah, teachers in the city were saying that before it used to be difficult to go to school. There were no buses and when you did get there, there wasn't much there. So the people who went to school really wanted to be there because it was difficult to go. And the numbers reflect this. It used to be that only 60 or 70% of students in Paraiba were enrolled in school. That means 30% of the population never went to school at all. But now, it's 96% in Paraiba. That's a lot of people, and all in the last 15 years.

-Ms. Brown, Female, Portuguese teacher, 8 years experience

Unfortunately, the students, they do drop out, they stop studying and everything, but there is another factor that we have to, that we know exists, it's about the government – Bolsa Familia, so before, if you didn't want to study, you didn't go to school. Oh. Today, if you don't go to school, your family suffers.

-Ms. Green, Female, Portuguese teacher, 10 years experience

This additional enrollment of students as a result of Bolsa Escola was perceived to have had a negative impact on the classroom. Teachers felt that students who were only there so that their families could collect the Bolsa were not motivated to learn. For example:

I think it's difficult to work in public schools here because we just don't have support, like for example, we know students come to study here mostly because of Bolsa Familia, and that's because it's enforced. They come here but they don't want to do anything here. So they just sit in the classrooms without doing anything. We see this as a negative point. It's about parents making their kids go to school, but they don't take account of their learning.

-Ms. Taupe

So many of them are going to school on the deposit system. There's space for matriculation, so they enroll, but … they just collect the Bolsa.

-Ms. Taupe

It's about collecting the money, not learning.

-Mr. Yellow

It's obligatory to be enrolled, and …(inaudible)…the area is needy, we don't have a lot of jobs, there are some public jobs, but there isn't much business, there's isn't industry or business. So lot of people end up depending here on the Bolsa Familia, so there are students in the classroom, but to maintain this extra income, they don't have to want to learn.

-Mr. Black: Male, science and math teacher, 6 years experience

Interestingly, there was one teacher who articulated that perhaps the "negative" effects of Bolsa Escola as articulated by the teachers above, may come to an end in the future. Perhaps what was happening was a sort of 'system shock' and that in the future as education and facilities of

schools improved, that education itself would become important, rather than just attendance records. Specifically, the teacher said:

Elementary school is dirtied by a reputation that it's just another social program, a way of getting kids off the streets and combating child labour. So now school is just a place for the children. The idea that it's a place for education still doesn't really exist. So until Brazil really begins to think that education is an important thing, like out in the developed world, it's much more valued than here. This has changed a little, today, elementary school reputations are getting better.

-Ms. Pink: Female, Portuguese teacher, 7 years experience

Bolsa Escola and Prova Brasil, as national policies and practices, have had an enormous effect on the challenges facing schools and conditions in classrooms. This in turn, according to teachers' responses, affects student learning and achievement. Teachers interviewed in this study are interested in a national assessment system that provides contextualized data that can be used to improve teaching and learning in the classroom, and is more transparent and participatory in its development and display. Despite acknowledging the major improvements to school attendance that Bolsa Escola has made in Paraiba and across the country, teachers are critical of its effects on the classroom environment. Some teachers, however, were able to articulate this short term 'growing pain' in the system and hope to see education valued more highly in Brazilian culture in the future.

5.3 *Educational Resources*

Teachers interviewed in this study indicated that some educational resources, like textbooks and some infotech (i.e. computers) resources, had improved dramatically with the changes to educational policies over the last ten years. Most teachers cited improved libraries, a substantial increase in access to books in the classroom for students, and some access to computers also. Teachers believed these were positive steps in education and had gone a long way to improving teaching and learning in the classroom. There were, however, issues with the organization of these resources. For example, how the resources are applied and organized in schools, and how there continued to be resources that teachers want but do not currently have access to. Further, while teachers were in support of the federal policies, they indicated that a lack of oversight had lead to corruption and the mismanagement of resources by local authorities. In support of the

observations of the teachers, it was noted by the researcher that there exists a surprisingly wide variation in school conditions and access to resources across the sample sites.

5.3.1 *Focus*

The DASI core concept of *Focus* was able to capture many of the themes and narratives of teachers regarding improvements in educational resources, issues with organization and implementation of resources, and perceived corruption of federal policies and intentions.

Teachers expressed an overall improvement in resources with books being the most noticeable, positive, and widespread change in schools over time. There was also some attention to improving access to info tech resources, computers specifically, in schools in more recent years. Teacher narratives, for example, articulated:

We, the people teaching middle school, we used to have to photocopy books, to save the books, so we took photocopies of the books. The other year was the first we really saw these resources arrive. We finally had books with which to teach middle school. Before we didn't have them. Before we only had books for primary school. We had a complete set for the primary grades, but we didn't have that for the middle school grades. So the result? The result was that we recorded this at the end of the year. And so things finally started coming. When I went to school there were no computer labs, we didn't have those, and we didn't have internet either. LAN houses [Internet Cafes] *didn't come until about 2006 to this area. So in this respect, there has been a lot of government involvement.*

-Mr. Rose: Male, math teacher, 7 years experience

In this classroom here, we have beautiful mathematics resources, right? And sometimes they come in here to learn. If I'm talking about polygons, well they're there! Right? So I say "polygon" and there they are. And we have books too to support it. Actually now I'm looking around there's more here I can use. If I could have these in my classroom to it would be great. If we could have them more, it would be great.

-Ms. White

Things, though, have gotten so much better. There has been a major advancement in the last 5 years. In the first place, we didn't have this room, we really had nothing. Books? We didn't have them.

-Ms. White

There was an overwhelmingly positive narrative regarding the increased provision of books in schools and the benefits of this, and some indication that teachers were impressed with the

arrival of computers. However, there were many detailed narratives of resource mismanagement and troubled implementation. Some narratives illustrated the trouble of having computers but no internet, others detailed small number of computers arriving in batches with no tech support to accompany them.

Because, for example, the federal government gives us information labs computer labs, so officially the federal government is given word that we have computers and Internet. But the Internet is so slow it is unusable, and this is a shame because this is a really great way to get the students motivated, but we don't have access. And, for example, each of our classrooms can have up to 45 students but our computer labs have 22 computers. So they have to work 2 to a computer.

-Ms. Navy, Female, Portuguese teacher, 25 years experience

Like in 2006, when the computer lab came, we didn't have access to it yet, but it was here, there was only 2 computers that came. And those computers, well, who was going to be the Tech guy? We didn't have one. So what happened? We shut down the lab. They shut and locked all the doors to the computer labs. The rest of the computers came years later, and of course no one knew how to use them because we weren't allowed to use them. They said they would send a tech guy with them, but then didn't. So what's the result? They hired someone to work in the kitchen, listen, listen, and that kitchen person was then in charge of the computer lab. She didn't know how to shut the computers down even! She shut them off by pulling the plugs out! Of course the computers ran into some technical difficulties, so the result was that once again the computer labs were locked up again. We had no access because they were broken, or they were scared of breaking more of them. They need a tech specialist to work in these labs, to take care of the computers, keep an eye on things. Students sometimes ran into issues on sites, didn't know how to do something, and sometimes, even they weren't sure how to even turn on the computer. So these computer labs are just an optical illusion. Today, the computer lab at the other school is still closed and locked.

Mr. Rose

There were other technology initiatives, but as with the computers and computer labs, there appeared to be a disconnect between the intention and resolve of the federal policy, and the implementation of the program. One story in particular, stood out to the researcher:

Yes. The government, what did they do? All the schools in Paraiba, state schools, they gave iPads to all the students in the first year of middle school. And what happened? Everyone was excited, happy, but it was a new technology, but we thought because the students all have cell phones, this would be all good, but tablets also have other functions, right? It's also a small computer, right? But it's also more advanced than most computers too. And the teachers were worse off than the students in knowing how they work. Students already have a greater knowledge of these things in relation to many teachers, because teachers don't currently have any digital resources. But students do. My niece is only two and a half years old and she

already knows how to swipe her fingers across the cell phone to make it work, but I can tell you that my Dad can't do the same. Outside of making a phone call, he doesn't know how to use it. So that is the result? The students in first year middle school in state schools, what happens is, everyone's excited, first week of school arrives, the iPad stays inside its cover. Fine. Second week comes around, and students are having problems with their iPads – there are defects in the iPad or they're not working properly, or they broke them or lost them, and teachers don't know how to use them, like how to configure the devices, deal with viruses. Teachers too are running into these problems, but they don't know how to use them well enough to fix any of them. So what happened? Teachers didn't use them, so the whole year passed and no one was using them. Students were basically using them to put their music on. Other students, because this is Paraiba right, were selling their tablets. Why not? They saw that they were not using them, they were not useful in the classroom, which was the principal object of having them in the first place, to use them in the classroom, but what are they using? They're using books and paper in the classroom only. So, what next. After 6 or 7 months of this, training programs for teachers finally came out. So they could take courses to figure out how to use the tablets in the classroom. Right. Just in time for all the devices to be broken, or sold, or students saying, no we don't even want to learn how to use them anymore. We just want to listen to music. So when we got them we all wanted to use them but couldn't do it, and from a whole grade of iPads we have about 10, 30 or 15 left in the school. We can't do this.

-Mr. Rose

Although teachers felt that access to resources had improved over time, they have indicated that there have been flaws in the application and implementation. Further, teachers are clear that there are still resources that are required in classrooms to improve the quality of teaching and learning. Primarily teachers are interested in more and better info tech resources, and in capacity building programs for teachers to support more innovative, technology-based ways of learning. Specifically, teachers spoke about info tech resources they would like to see. For example:

Yes, tech resources for research, for administrative tasks, for example, here we have a school with computers that have broken and still no one comes to fix them. And what I really want, I asked for, I had some little videos I want to show that I picked, basic videos, and I was working on a science project – an ecology project – and I wanted to show the kids and I did it, and they thought it was the best. It was their favourite subject that year, and much better than if I had just read out the section of the textbook. It's just different from that style of education that we used to have in the old days, and if you are not careful with how you are teaching these things, and if you mix it up for them, make it interesting, it's a better quality of learning.

-Ms. Tan: Female, Portuguese and math teacher, 18 years experience

Computers, projectors, to be able to explain things better. Math teachers, for example when they give a test and they want to go over the answer, it would be important to have these. And if all the classrooms could be adapted for this it would be great. Right now we only have a few locked up for the whole school. So if you need it you go there and it's being used already and you can't have it. Do you understand? The projector is like this. So it would be nice to have one in each classroom, that would be much better.

-Ms. White

Capacity building, especially professional development, for teachers was also a popular point of reference when asked about resources that schools require going forward in order to meet educational policy goals and intentions. For example, teachers said:

Now there have been some changes, digital resources, and some classrooms have a white board too. And we recently received some math games, some resources for math. But it's like this, as much as we need the information [resources]*, we need capacity building. I can pick up the math games, but for me to use them, I have to do a lot of research on them. As things are new, and getting better and changing, so I have to find resources to better my practice. But I need this capacity building, and on this aspect, the state doesn't make an investment.*

-Ms. Taupe

What I really want is more pedagogical help. Understand? What we really need is a bit of help. But, it's like you said, they say, you have 19, 20 years of experience in the classroom, but I don't think there's a lot to be said for this. Because every year is different. I give different lessons, it's different students, and the tests are different. Everything's different. So what do we do? We have a HP [personal device- computer] to plan and teach students, but we don't only teach in one school, and we work at home too, and there isn't a computer here for us to do our work on. Research.

-Ms. Scarlett

Despite critiques of inconsistent and faulty implementation, teachers were generally happy with the increased resources in schools and how it has positively affected teaching and learning in the classroom. The educational policies driving these changes were also perceived to be adequate, positive, and forward-thinking. Teachers appeared to believe that although the policies are good and the federal funding is also adequate, that as the policies were implemented by local authorities, resources and money in particular, appeared to be re-directed. Teachers spoke openly about their belief in the existence of corruption of local officials and the lack of oversight of the policy implementation and believed this to be the main reason for troubled implementation and resources that continued to be missing in classrooms. The observations of the researcher supported this assumption as the variation in resources, infrastructure, and organization varied widely by local district. For example, the researcher noted in her field notes for Site 5:

My questions are now – does the condition of the school depend on how effective/hard working a principal is, or is it more to do with the nature of the Secretariat? What is the mediating/moderating variable? Why is the school system so advanced in some areas and not in others? Why the inconsistencies?"

and Site 7:

The teachers seem to think this is the normal state of schools in Paraiba and that farther into the interior school are the same or worse. My experience is that I've seen other small schools like this one that appear to be in the same condition - I didn't visit them because I couldn't find them on google maps before to plan to go to them, and when we did stop to go into one, it wasn't open, so there are other schools like this one, but the schools I went into in the interior were at least basically adequate ranging to excellent. This isn't what I would describe as the norm. There is no psychiatrist or social worker here. No supervisors or administrative help at all. Again, why the discrepancy? Some teachers and the principal speculate that it might be the size of the school since funding is based on the number of students. I think it has something to do with the relationship of the principal with the Secretariat, and the Secretariat his/herself. Maybe resources arrive because there is no way to take that money out of the system and put it in your wallet, but money for infrastructure might be easier to keep out of schools and in your own pocket. It certainly doesn't have anything to do with the degree of rurality, degree of poverty, degree of isolation, and distance from the capital in my experience.

Teachers indicated they are also aware of these variations in resource levels as they said:

The federal government has nothing to do with it, and they send the resources and the money. It's the local people that don't apply it.

-Mr. Red

Yes it can't all be right. It's without structure right now. So what we have is the right idea but the officials at the state level don't get it right. In the past there was an organization that oversaw education spending at the state level, but the governors argued that the federal government shouldn't have to send invigilators. So the federal government stopped and this is why we have so much corruption now. Before, when we had the oversight, all the money was accounted for because they were policing it. And this is why teachers are so angry, from the television they talk about improving education and making things better for teachers but in reality, it doesn't happen.

-Mr. Red

The money has come here but the problem again is oversight. Sometimes the money comes to places and it just doesn't get to other places.

-Ms. Orange: Female, Portuguese teacher, 27 years experience

This, like the discussions regarding Bolsa Escola, was not an area of discussion previously foreseen by the researcher. There was, however, compelling evidence in the researcher's

observations to support the idea that perhaps the extreme variation in school conditions was quite plausibly a result of the way local authorities administered the program and distributed resources and not a result of the educational policies or application of funds by the federal government of Brazil. This line of inquiry lead to a renegotiation of the preliminary multilevel models of this study. More on the interaction between these phases of inquiry related to this topic can be found in section 3.5: Points of Intersection.

5.3.2 *Stage*

Teachers associate the changes in educational resources with the Cardoso government of Brazil, and cite the majority of changes and improved conditions coming thereafter. Most teachers interviewed indicated that the resource levels in their schools began to change dramatically five to nine years ago. When the resources began to arrive, the quality and quantity of the resources did not appear to be related to geographical location or distance from city centers, and appeared again to be dependant on the local authority. Teachers indicated that the books were amongst the first resources to arrive, and technology has arrived more recently and usually in small batches (i.e. two computers arriving at a time). Teachers who taught in the 1990s, or who were in school before and during the 1990s, cited blackboards as the only piece of technology in classrooms prior to the Cardoso government and educational policy reform. For example, teachers explained:

Yes it has changed. Ever since the Cardoso government days. Ever since the Cardoso government, things have been changing. That's when materials and resources started to come to the schools. Things got better, we got to choose the materials.

-Ms. Turquoise: Female, Portuguese teacher, 20 years experience

I'll tell you about the experience I had. I finished teaching middle school in 2006. And that was about the time that resources started to come for the middle school grades. Before that, we didn't have them. That was our reality. We didn't have any. So, after this, textbooks started to arrive in schools, and this is also when the infrastructure began to improve. If you left schools in 2006, and came back, let's say, last month, things have changed 99%.

-Ms. Brown

One issue plaguing discussions regarding the improvement of educational resources in schools is again the implementation of policies. In a discussion of *Stage* this manifests as a lack of continued support and investment. Teachers said:

Look, resources sometimes, the resources are limited in public schools. It's better in schools there is better equipment but resources to support the equipment, people who know how to work with the equipment… For example computers and Infotech in the classroom. So, to this day I think I say there haven't been significant changes regarding the question in the structure of schools. So schools continue to function precariously.

-Mr. Peach, Male, math teacher, 35 years experience

So there's money for these projects, so much money for the projects, and it gets lost because there's no real investment in education. Consistent investment.

-Mr. Red

No, the majority of the computers are broken. I think maybe 6 of them work that we try to work with. So those students we choose from the grade to work on them, they work on some robotics projects, but the rest don't have access. The majority don't have access on a regular basis because we don't have enough for all of them.

-Ms. Tan

Yes. In theory says one thing, real life is always different. It's more difficult. But it's getting better. We had no computers, now we have 10 here, 10 in another place and 10 somewhere else. It would be better if we had 30 here. Obviously. But in the last 5 years this place has changed so much. It's been a huge evolution in the last 5 years, like I told you. There were only 2 classrooms per grade when I studied here and now look at the size of us and the infrastructure that we have! We have school all day here now, all 3 time bands, and some old students give some lessons here for now, but every year things get more and more stabilized for the students.

-Ms. White

Through the researcher's discussions with teachers, teachers were almost unanimous in their belief that educational resources had improved over time and were the direct result of Federal policies than began with Cardoso and have continued under the Lula and Rouseff governments. There are, however, ongoing problems with application and implementation, and oversight of these policies in districts.

5.3.3 *Quality*

Teachers interviewed in this study positively viewed the increase in educational resources in schools over the last ten years. Specifically, the majority of teachers were very happy with the quantity and quality of textbook resources in schools. Teachers linked increased print resources

with a dramatic improvement in teaching and learning in their classrooms. They were also happy with the increase in info tech resources, computers mostly, but found these resources lacked support and consistency. Teachers linked the increase in info tech resources with better student engagement and the ability for teachers to create more dynamic and engaging lessons for students. This engagement is believed by teachers to improve student achievement. There was also a wide variation in resources levels observed by the researcher in her school visits across the 9 sites in the study, and noted by teachers across school districts. Moving forward teachers felt that more and better info tech resources were required, accompanied by increased investment in teachers and support staff for these resources.

Teachers were generally positive about the changes to print resources, textbooks in particular in schools. Common comments from teachers about these book resources were:

In the quality of resources, I have seen big changes. Up-to-date materials, in materials there been great changes.

-Ms. White

I also use the library a lot, I think it's really great.

Mr. Turquoise

Yes, our library is getting bigger and we have a lot of books. Our library is very nice, we have a lot of books.

-Ms. Orange

Yes, I have. It's now come to the point where we can choose which books we want to work with. And then we have a library and a computer lab too. Although, these are both small, because this school, well, this is our reality, right?

-Ms. Green

Of course, there was some indication that in some schools, even the print resources sometimes were not administered correctly. It is worthy of note that the two schools that continued to have trouble with print resources were the smallest schools visited by the researcher, one of which was in the district which appeared to have the least number of resources generally and was also the furthest behind in terms of infrastructure.

Yes, the books come but it's not enough for all of the students. No. So imagine we have about 18 or 19 students, 15 books come. And so we have to figure it out here.

-Ms. Scarlett

Here for example, we have a big school we have a lot of qualifications, but the resources do not come as we want them to. We have big rooms, but we don't have infrastructure to teach with. When the federal government sent books, it was not quite right. For example, some books came like for Portuguese and mathematics but history and science books did not come.

-Ms. Orange

Overall, teachers were impressed with the print resources but they consider these to be the basic resources *required* for teaching and learning in the classroom. The resources they *wanted* in order to diversify and improve their teaching were the Info Tech resources. Teachers wanted computers to help engage students and wanted computers for their own use for research and lesson preparation. Some teachers also were interested in maintaining websites where activities and homework could be posted and online contact with students for help outside of school hours could be offered. Despite an acknowledgement that computers had arrived in most schools, the implementation of these resources was again problematic. For example, teachers said:

It's the computer lab, the Infotech resources. I want to take my students there more, but right now the Internet is so slow.

-Ms. Turquoise

Yes, I think so. I think there are been small changes but these changes have been significant. We have a computer lab, it's not a first world computer lab, but we do have one.

-Mr. Black

I think the resources we still need are technology based ones. It's a question of audio-visual resources. Like documentaries. See? And then you have a chance to give a more dynamic lesson, or to make a presentation on an original theme. Then the "interest" factor is much better, the student concentrate more, they think it's a novelty. Understand? And this helps a lot. But at the same time, we can't leave the books on the side, we are always using our books.

-Mr. Purple: Male, math teacher, 10 years experience

Here they offer resources, the high ups, they offer but they don't prepare the places to receive these resources. Why don't they send a Tech person, someone with qualifications in technical studies to take care of these computer labs we are getting? So we can avoid these computers that we do get from burning out. And the question of the state. Why don't they appoint specialists to support programs like this one with the iPads? So they can run courses, because right now, they send the resources, the equipment, but they don't prepare us to receive them.

-Mr. Rose

Generally speaking, print resources like textbooks had arrived in schools and some computers had arrived in all of the schools visited, but the quality and quantity of these resources varied

very widely. There were enormous discrepancies between schools in different districts in infrastructure, print resources, electronic resources, and teacher support. These differential levels of resources and support were noticed by teachers and frequently commented upon. For example:

Because, even if the school is at a very high level, I don't think resources arrive the way they should in schools that deserve them. Or sometimes they don't come at all. Like, I was working in another municipal school, and I didn't see any resources arrive there at all…
-Ms. Turquoise

The infrastructure in this school is marvellous. Now if you came to the school where I work in the afternoon, in small city outside Joao Pessoa, the infrastructure is horrible. When it rains it comes through the wall and the roof.
-Mr. Rose

The smallest school visited, in the least advantaged district visited by the researcher, had a solid floor in only two rooms, and there were large holes in the roof. This would mean that when it rained, the main area of the school would be muddy. The teacher at that site commented that the only change she has seen to the school in the time she had been working there was that someone came and painted the exterior of the school. This school had no exterior play area for the students and was located close to a main road. When the researcher arrived to do the interview, a few students were outside kicking a decrepit soccer ball around just outside the doors and just a few meters away from the road. The teacher there said:

No. And for me, it really needs to get better. But here, the only thing that has changed is the paint. They did put a floor in, in that other room, on account of the Mais Educacao program.
-Ms. Scarlett

In one of the most advantaged schools visited by the researcher, the school with the best infrastructure and obviously high levels of resources including wheelchair access, a computer lab that was climate controlled, an outdoor recreation area, an auditorium, a special needs room equipped with specialized equipment for the physically and mentally challenged, it was acknowledged by a teacher that the school must have a patron in order to have access to all of these funds and resources. In fact, when visiting this site, the principal called the superintendent of the district who came to visit with the researcher and arrived within 15 minutes of the principal's phone call. It was then that the researcher discovered that the superintendent's

children attended the school. This was an indication to the researcher that the superintendent of the school district may play a very large role in the administration of resources and funding in schools in Paraiba. One of the teachers interviewed at this site said:

And this question of infrastructure, we had a government person pass through here, through the first level, this was the first step. I don't think this school would really be here if it wasn't for this first step, now, I don't know but we might get air conditioned classrooms too. There has been a patron of this school I think. A school with a proper gymnasium inside the actual school, this comes out of the investment of the government. Things that before we didn't have. And that really we didn't think we would have.

-Mr. Rose

Teachers have seen many important changes in schools over the last 10 years in Paraiba, however, there continue to be issues with the implementation of policies and distribution of resources in schools despite these advances. Teachers interviewed acknowledged the progress schools had made but were clear that continued support and more advanced resources are still required in order to improve the quality of teaching and learning in schools. Info tech resources were most often cited as the resources most valued as Brazilian educational policies move forward, and support, including pedagogical support for teachers, to use these resources is required for improved implementation. The replacement of info tech resources that had arrived ten years ago, the renewal of these resources, was also what teachers were looking for. For example, teachers explained:

Good. Changes, yes. When I entered 20 years, in this municipality 20 years ago, when I got this job. Not this school, another one, but in this municipality. The salary was very behind and there was almost nothing in the classrooms at all. In the last 5-6 years, things have begun to get into the schools – resources. Computers, IT rooms, technology. Regarding the question of material, permanent material, paper, all of this came. And this came about 10 years ago. But now we are going through another kind of crisis. We want to work with a video, for example, but this kind of material isn't coming at all from the Secretariat of education. So, the good materials that we have aren't being totally used and are deteriorating.

-Ms. Tan

Teacher: It's the computer, the internet, and the printer. They're all broken. So I have to work with the text only. Right? And I'm teaching about something that is totally different from the reality of the students. And what am I going to do? If I do research somewhere else to find something that works better so I can bring it here to take photocopies of it… but where? We don't have a photocopier. I have to go to [nearest town] *to use a photocopier. Sometimes I take a picture on my phone and bring it. Because I can't go home and make photocopies, right?*

Interviewer: Can you go into the Secretariat's office to make photocopies?

Teacher: Yes but there I think there's… I think you can't, for the number of students. I don't know. I've never tried finding out, because if I try, I just bring difficulties on myself, right? Sometimes you can't go in there because people are already using it and there's no room. And so, it's really. It would be great if we could. If they could, like, help teachers with this. I would really like this. Because it's supposed to be them investing in education. Education is health, it's the base.

-Ms. Scarlett

The quality of educational resources in Paraiba is complex. It is clear that improvements have been made in access to and distribution of good quality print materials. The majority of teachers acknowledge both the effectiveness of this policy and its implementation, and the positive effect it has on teaching and learning in the classroom. Info tech resources, particularly computers, are highly valued by teachers and in some schools in some districts there has been a reasonable implementation of these policies. There are, however, wide discrepancies in the application of info tech resources in particular and no school believed that there wasn't room for improvement in this respect – either in access to internet that worked well and regularly, or access to a greater number of computers, or access to any computers even for teachers to use for classroom resources research. All teachers valued these info tech resources greatly citing increased student engagement and participation with the use of these more dynamic resources in the classroom.

5.3.4 *Differentiation*

Teachers generally explained that the resources that had arrived as a result of the educational policy changes of the last 10 years had begun to meet basic educational needs and this had improved the quality of teaching and learning in the classroom. These resources, however, require continued support and improvement to be able to more effectively embed them into schools and across subjects, both of which would greatly improve both the effectiveness of the policies and resources, and the quality of teaching and learning in schools.

It is a little better. But there are still open air schools, they don't have air conditioning or in some cases they don't have roofs.

-Mr. Red

Now there have been some changes, digital resources, and some classrooms have a white board too. And we recently received some math games, some resources for math. But it's like this, as much as we need the information [in the resources]*, we need capacity building. I can pick up the math games, but for me to use them, I have to do a lot of research on them. As things are new, and getting better and changing, so I have to find resources to better my practice. But I need this capacity building, and on this aspect, the state doesn't make an investment.*

-Ms. Taupe

Look, the resource that I want most here in my classroom is to at the very least, have a way to inform yourselves. You see in the bigger schools they have a library. We need something so they can do research, but here we don't have it. But we really don't have this access. If you go there to the Secretariat, you will see how the students there have computers, how all students have access to computers. We are here with nothing. We have those computers over there, but students aren't allowed to use them. So it would be nice to have books, and a white board. But this is our reality.

-Ms. Scarlett

Resources, when and where they are available, are used by teachers across the curriculum. Due to the inconsistent nature of resources availability and quality where available the embedding of resources across the curriculum and across school years is not often possible. This is particularly true of valued info tech resources. Teachers articulated these difficulties in embedding resources when they said:

But now we have a lot of computers but we have too many students in the class to use them. They are interested in learning on the computer, we have a room with 18 computers that work but none of them have Internet. When I take students there, and I want teach them how to search a word on the Internet, how to put on accents, how to use punctuation, but it doesn't work because the Internet doesn't work.

-Ms. Orange

Yes, for example, if I'm teaching about polygons, if I'm talking about perimeters, right now I can only point outside to the recreation space, but if I had a projector, if my classroom had been adapted with this equipment, there would be the conditions under which they could see, really see. I think.

-Ms. White

Consistent access to good quality resources supported by specialists (i.e. Tech person for computer labs) and investment in teacher capacity building are required for resources to meet the needs of students and teachers in classrooms and across schools. These conditions must be met in order for teachers and administrators to more effectively embed these resources into the daily

routines and practices of students and thereby more effectively improve the quality of teaching and learning in schools in Paraiba. Teachers believe that under these conditions, students would be more engaged with their education and more likely to improve on both in class assessments and national and international achievement testing.

5.3.5 *Summary*

The purpose of this chapter section is to address the research question: What are teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of school resource policy implementation and their effects on schools? Teachers interviewed in this study generally perceived the federal funding of resources in schools to be adequate, and that this funding had been directed primarily towards excellent print resources that were usually readily available in schools. Teachers were clearly in support of policies that brought additional resources into their classrooms but cited many issues around the implementation of these policies including corruption and continuity of support (i.e. replacement of broken or outdated technology).

Teachers generally believed these resources to be of utmost importance in the classroom processes of teaching and learning. Their experiences with print resources, in the overwhelming number of cases, was that they had arrived in the last decade and were the basis upon which they were to center their teaching. Their experiences with info tech resources, like computers for example, was far less positive. It appeared as though schools that had computers did not have adequate internet access, other schools had received technology in small batches over long periods of time that had rendered the technology un-usable in day-to-day teaching, and still others pointed towards a lack of tech support and professional development around technology that hindered the effective use of these resources in schools and classrooms. Teachers believed print resources to have had the largest positive effect on teaching and learning in the classroom over the last decade. Info tech resources, on the other hand, are generally considered to have had little or no impact but teachers believe that these resources have immense potential to improve student outcomes. In the cases where info tech resources have been available, teachers believe them to have had a major impact on the engagement of students in learning in the classroom. They believe the interest of students to be piqued with the use of these more dynamic resources,

and also believe the resources can be used by teachers to research more and better information and activities for students. One teacher was even able to use a website and contact with students via the internet outside of school hours to support home study. In summation, print resources were reported to have had the largest positive impact on students' outcomes from the perspectives and experiences of teachers. There have been some issues with the distribution of these resources, but generally speaking the implementation of these policies has been effective. Info tech resources are desired by teachers but the application, distribution, and support of these resources has been deficient and therefore these resources have had a limited impact on teaching and learning in the classroom. In addition there was evidence of teacher perceptions that corruption or other factors influenced the distribution of resources at the school level.

5.4 *Teacher Qualification*

Teachers interviewed in this study were unanimous in their support for the increased regulation and rigour in teacher qualifications brought in by the new Brazilian educational policies. They were also mostly pleased with the increased access to teacher qualification and professional development programs through satellite university campuses in more remote areas of the state and through online courses. They agreed that the quality of these programs was generally very good, with online courses being the least valued and considered the least effective. Teachers unanimously agreed that increased education, certification, and qualification of teachers, and the rigorous enforcement of these policies benefits students and their learning in classrooms. Teachers in this study, however, felt that the new requirements were not accompanied by appropriate levels of professionalization, especially salary valorization. Teachers were also concerned that they were expected to upgrade their qualifications with no time or monetary support to do so.

5.4.1 *Focus*

Teachers interviewed in this study were overwhelmingly positive about the more regulated and rigorous qualifications required for teachers. They felt that access to programs with which they could upgrade their qualifications was generally very good and most programs they had heard of or engaged in were felt to be of good quality. For example, teachers said:

Yes I definitely seen changes, now you have to have a university graduation. Before, anybody could be a teacher. You didn't need anything, not even university, all you had to do was finish middle school. It was horrible. But now it's changing, qualifications, I really like the changes that they're making.

-Ms. Turquoise

Yes, this has changed. Because the law has changed, it's not more rigorous, it's just that it's more regulated. So today, you need to have a professional qualification to be in a classroom. From primary school all the way to secondary school. So this means the professional must take courses, and become accredited.

-Mr. Purple

Paraiba, last year, started a project, Paraiba started a project to give post-secondary education to everyone in education in Paraiba, if you were a teacher or principal, but you had to be in schools. And I did this program, a technical program, and I did a specialization in education, and I loved it. And after they made this investment, which they did in parts via FPB, and on top of doing this they also helped me with transportation too. Because if you live a certain distance away, within certain districts, they gave me 50 Reals to go to class every Saturday to do this continued education and specialization.

-Mr. Rose

Or, in the past, you could have a biology degree and you could teach geography. This was normal. Today, you can't do that. You have to teach in your area.

-Ms. Brown

There was, however, some acknowledgement that some schools did not always implement the policy, that some teachers did still teach outside of their subject area. Usually in smaller rural communities where qualified teachers were less available. In one case, again in the school district that appeared to have the least access to educational resources as described in the previous educational resources sections, one issue with the new regulations is that there may not be qualified teachers available in some districts, sometimes for extended periods of time. For example, one teacher interviewed explained that:

We don't have a Portuguese teacher for 6th grade. It's August and we still don't have one! It's almost the end of the year! This is part of the problem. We don't have enough teachers.

-Ms. Pink

It was acknowledged by teachers that obtaining and requiring advanced education and certification in a teaching discipline had a major effect on student learning in the classroom.

Teachers agreed this was overwhelming effective in improving student achievement. As one teacher succinctly put it:

Just like I've already said, absolutely, when you're certified in the area that you're teaching, the lessons are certainly different.

-Ms. Green

Despite this extremely positive view of teacher qualification policies and implementation, teachers also believed that these increased educational and certification demands should be accompanied by the increased professionalization of teaching and valorization through salary compensation. Teachers explained their frustration with this disconnect between increased demands without the associated valorization:

These qualification requirements are making things better, yes, but also, like, the state and the municipality, we still work for a very small salary. If you teach at 2 schools, you have to go get extra qualifications to improve your pay too, you do distance studies from the federal universities, here, for example, all the teachers have specializations, and often a pedagogy degree too. And we have teacher here that has a Masters degrees too. Here in this school. For this, we have this frustration, because it's not getting better, there's no recognition of what we have done. We have meetings and we get frustrated with this, inclusive of the people here, it's like we have all this, we do, and the municipality and the state, they don't respect our degrees. We should all do Masters to be teachers, what is this? Really, our salaries aren't good. You often have to have two classrooms just to get a salary that is more or less ok. It turns out that the salary that we do receive, we have to pay to the state to get a specialization.

-Ms. Tan

Partly because of their salary condition. It's a premium, you see, a premium that we get at the end of the year if we increase our qualifications. On top of our minimum salary, 1500 is our minimum salary. But when you get a higher qualification it is supposed to be applied every month, but instead as a project they hold onto the money. So we don't even get that money I think it's the same in the interior. There's just something wrong with education. It's not an organized investment plan, made into a real project.

-Mr. Red

Teachers were interested in advancing their own professional education but felt that the conditions of support and reward required further investment on the part of the Federal government. Nonetheless there was agreement that the government's educational policies were moving in the right direction and were improving education in Brazil.

5.4.2 *Stage*

Unlike the time span easily referenced by teachers regarding educational resources, teachers had more difficulty pinpointing exact policy implementation dates, most likely because there have been a range of dates for different kinds of qualifications that wouldn't affect all teachers equally. There is, however, an understanding that policy changes regarding teacher qualification are now coming into full effect and are becoming more and more rigorous. Teachers were aware of how recent policies were beginning to affect them, and believed that the qualification requirements that most affected most of them were now coming into an enforcement stage. For example, teachers said:

This year we saw two qualification changes required. And so now it's really starting.
-Ms. Turquoise

We used only have only one course per year to improve our qualifications. Now there is more.
-Ms. Orange

It was generally believed that these qualification policies were now approaching levels required of other countries and that the entrenchment of teaching as a profession was on the horizon.

5.4.3 *Quality*

Teachers support the changing educational policies of the federal government related to teacher qualification because they believed that the increased qualification would improve teaching and learning in the classroom, the conditions and climate of schools, and would lead to a more entrenched valorization of education in Brazilian culture. They were, however, also critical of increasing the requirements of teachers without adequate time or monetary compensation for courses and certifications required.

Teachers explained their support for the teacher qualification programs in simple, positive terms. It was clear to them that these policies were required and were improving the quality of education in Brazil. For example, they said:

But those there are qualified, those that are licenced, this is really important. Absolutely. It's majorly better.
-Ms. Green

The level/qualification of teachers has improved a lot, it's now got all the primary grades and all the way through middle school. Before anyone who had graduated middle school could teach middle school, but not now, not anymore.

-Ms. White

The difficulty with increasing the qualification demands on teachers, was giving teachers the time and support to meet these new requirements. Teachers felt that having to work in at least two schools in order to make enough money to survive, and then being required to complete extra qualification programs on top of this workload was not a realistic expectation and adjustments to policy should be made to support teachers with time and monetary compensation in their pursuit of compliance. Teachers explained:

Yes this I see. I mean because I'm not against online distance learning because this is an economic measure to save money. But the thing you need is time to do this. This is what they're doing, the professionals have to keep working and then on the weekends and holidays they study. I think this is, people do go, people are motivated to do that, and it is not say that people don't want to learn, people do learn a little this way. But they produce more if they have time and our proposal, I can say our proposal because I'm of the union, people should have continuous professional development time away from the classroom and dedicated to professional development. And our proposal is a sabbatical every five and five years or maybe every 10 years. If they work for 10 years they have one year of sabbatical to continue with their education and qualifications. That is our proposal. But even this they don't make a gesture to agree with.

-Mr. Peach

Yes, I have an undergraduate degree, and a specialization, and I really want to do a Masters degree too. I really want to do a Masters degree but the conditions under which they are offered don't work. There are subsidies to study, but the institutions are private that offer them and it costs. If there was a government program that offered one, let's say, that we didn't pay or that we got a salary to do. It would be so valuable to have teachers who are able to come together and I think we would learn because we can teach each other. This is very important.
For me? When I did the pedagogy and supervision course, so for me, I need to look for more training. Understand? I need to know more about how to work with these students, how do to research with them, how to work with Provinha Brasil. Now, how am I supposed to do this? I want to research what I need for the test on the internet, but I don't even have that here. How are we supposed to do our work?

-Ms. Scarlett

One main theme in the discussion of increased qualification and professionalization, was that there lacked a monetary valorization of these increased demands. Teachers acknowledge that there has been some adjustment in salary accompanying these educational policy reforms but do

not feel that these investments have been in step with the new requirements of the profession. Teachers articulated this disconnect during the interviews, for example they said:

It doesn't work, it is not professional. So today you can see for example the lack of salary. The Salary for a teacher of the state is 1527 per month. This is the pay of a teacher. Where is the motivation? So you have a situation of important resources you don't have, you have precarious amounts of resources, and teachers aren't treated as professionals. If they were valued, if they didn't work in three schools like I do, because what happens is you don't have time to prepare the lesson, to think about the lesson, really get to the students who are not involved with learning. You're only worrying about yourself and how you're going to manage this.

-Mr. Peach

We get R$200 if we become more qualified, what's R$200?

-Mr. Red

Agreement with the teacher qualifications was forthcoming by all teachers interviewed, however, from the perspectives of the teachers interviewed in this study, these increased requirements should be accompanied by the time, support, and monetary compensation to meet these new demands and implement the policy to improve teaching and learning in the classroom.

5.4.4 *Differentiation*

In order for the educational policies of teacher qualification to meet the needs of teachers in classrooms and provide the support teachers request around time and compensation that would allow them to take advantage of this additional capacity building and incorporate it into the classroom and their teaching practice, teachers request additional investment in the teacher qualification policies. Specifically, teachers articulated the following needs:

The resource we want now, is a better salary. because a better salary gives us the ability to buy books, and do courses to become better qualified.

-Mr. Red

I think the resources we need more and more and more, always, it's our continued education. Because everything is changing, so it doesn't make any sense for me here without an continuing education, as they say, and 2 months from now it will all change again, there will be other things for us to review. And for all the other things we have to improve on, we always have to be improving ourselves.

-Ms. Brown

We receive this qualification, and when we go to apply it, we are left wanting because we don't have the resources. It's the same thing with capacity building, if there are opportunities for

more education, we want them, Masters, which is good, but it's a paid thing, we also want capacity building that is given to us. Why doesn't the government, MEC, these organizations have a plan for this? Because we want these real life capacity building programs and opportunities. And many times when they do send someone to help us, they have chosen someone who is not well qualified to help us in this. We even tell them this too when they come. It's usually done by young people.

-Ms. Tan

In addition to this monetary and time support for additional qualification, teachers also stressed the importance of being able to apply new knowledges and skills in the classroom. They felt that the embedding of these new skills to be learned across the curriculum would require better organization, time for preparation, and better working conditions – like the ability to work in just one school per day. For example, they said:

This goes back to what [Ms. Pink] *said, it's a question of human resources. It's about missing teachers out of classrooms. In this instance, the students have been 8 months with no Portuguese teacher, and now they're up against a national exam? Are they even worried about this?*

-Ms. Brown

In Paraiba, you're supposed to do these courses written by the Ministry of Education, courses by the government themselves [for websites]*, because it's a federal structure, what does this mean? The students ask, teacher, do you have a website for us to get the notes off of? It's like a fever, they all ask. So what am I doing? I'm trying to get all my lessons up there, I have 10 minutes between classes so what am I doing? I'm maintaining my EF* [website]*, I've done this since I did my Masters, which I did with them* [the government]. *I'm answering students' questions at home, I'm taking photos and posting them, trying to help them. But, for me to work in another school so I can boost my income, I wouldn't have time to do this! In the afternoon I would have to go to the next school. There's no way I could do that. So it's complicated.*

-Mr. Purple

The improvement of teacher qualifications and the application of that knowledge in classrooms has the potential to dramatically affect the quality of teaching and learning in the classroom and teachers are thus in support of these educational policies. They are critical, however, about the lack of support for these policies and their practical application in teachers' busy teaching schedules.

5.4.5 *Summary*

The purpose of this section is to draw together the main qualitative findings to address the research question: "What are teacher perceptions and experiences of the focus, stage, quality, and

differentiation (DASI) of teacher qualification policy implementation and their effects on schools and students?". Without exception, teachers in this small but varied sample perceived the educational policies related to increased teacher qualification to be positive in both intention and practice. Teachers interviewed in this study were in support of the increased professionalization of teachers and the increased academic rigour of qualification programs for teachers. Teachers were aware of teacher qualification requirements, recent changes to those requirements, and the regulation of policies and requirements in schools and were in favour of all of these changes. Further, many teachers believed that these changes should be more strictly enforced as many expressed either beliefs or evidence that these regulations are not enforced to their full extent. The implementation of these policies, however, did not meet teachers' expectations. Teachers believed that the increasing teacher qualification requirements should be accompanied by both time and monetary supports in order to make their attainment more feasible for teachers already employed full time in schools. In addition, teachers believed that the increased classroom demands and qualifications of teachers should be accompanied by salary increases and improved working conditions. It was believed by teachers that teacher professionalization, professional development, increased qualification has had, by far, the largest positive impact on teaching and learning in the classroom.

Chapter 6: Discussion

The over-arching aim of this study is to examine the effects of Brazilian educational policies that have increased funding for school resources and teacher qualification on students' Portuguese and mathematics achievement and to explore how these policies have affected schools and students from the perspectives of teachers teaching in Paraiba. The central research question that guides this study is: How have recent Brazilian educational policies related to increased resources and teacher qualification (i.e. FUNDEF, FUNDEB and the National Policy on Teacher Education) affected schools and students' educational outcomes in Paraiba, Brazil? The philosophical grounding of the study in pragmatism (Dewey, 1938; James, 1906b; Peirce, 1878) as it could be applied to educational research contexts (MacIntyre, 1984; Pring, 2000; Stenhouse, 1975) led to the application of the DASI model (see Creemers & Kyriakides, 2006) as the theoretical basis of this study. The five dimensions of the DASI theoretical model - *frequency*, *focus*, *stage*, *quality*, and *differentiation* – aligned well with the use of a sequential integrated mixed methods design and methodology in the pursuit of warranted assertions that address the aims and questions of this study. Phase I of this study was concerned with the *frequency* of resources and used the publicly available Prova Brasil data sets for 2007, 2009, 2011, and 2013 to examine the relationships between school resources and teacher qualification variables on students' Portuguese and mathematics outcomes. Phase II of the research used the preliminary models of Phase I to structure an interview schedule that examined teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* (DASI) of school resource and teacher qualification policy implementation and their perceived effects on schools. The results of Phase II of the research were then used to help clarify and refine the final quantitative models initially developed in Phase I of the research. The results of both Phase I and Phase II are now brought together in a process of integration and synthesis to address the main research questions underpinning this study.

It has been suggested in the literature that some students become more advantaged (i.e. more educated, more wealthy, more powerful) due to capital or resource advantages offered to them *via* inequities in parental wealth, ethnicity, language, etcetera (see Bourdieu, 1986 for example). Socio-economic status, therefore, is an important control when the aim is to establish the effects of schools on student outcomes. This is no easy task, however, because socio-economic status is

usually conceptualized as a composite indicator reflecting the idea that is is a combination of cultural or resource advantages that affect children, and this means that the composition of SES masures can vary widely between studies due to the availablility of indicators on surveys and cultural differences that may indicate socio-economic gaps between students in one context but not another (Sirin, 2005). Recent large scale studies, for example Nonoyama-Tarumi, Hughes, and Willms' (2015) examination of the effect of socio-economic status on student mathematics outcomes using the Trends in International Mathematics and Science Study (TIMMS) data in 45 countires continues to empirically show the strong relationship between this indicator and student outcomes internationally, and Sirin's (2005) meta-analysis of 58 studies showing 307 correlational effects of socio-economic status (albeit with disparities in the measure itself) on student outcomes again illustrates a stable and global relationship. It is posited in the literature that the strength of the effect of socio-economic background characteristics on students' outcomes can also act as an indicator of the degree of equality in education (Hansen, Rosén, & Gustafsson, 2011). Acknowleding that education cannot "fix" long standing societal inequality and injustices alone, there is nonetheless evidence that schools do matter and they can lessen the impact of socio-eceonomic background characteristics on a variety of student outcomes. Recently, Bodovski, Byun, Chykina, and Chung (2017), Schlicht, Stademann-Steffen, & Freitag (2010), and Stadelmann-Steffen (2012) noted that higher amounts of government spending on education tends to mean that student outcomes depend less on parental background characteristics. Converseley, Hansen, Rosén, and Gustafsson (2011) note that decreased funding for education in Sweden created greater inequities between students. Brazilian researchers also note that Brazilian schools are having stronger and more significant effects on student outcomes (i.e. the strength of student socio-economic background characteristics on student outcomes is decreasing), and conclude that the quality and equality of education in Brazil is improving (J. Soares & Alves, 2013; J. F. Soares, Alves, & Xavier, 2016).

It is in the context of this international and Brazilian research on the effects of student socio-economic background characteristics on student outcomes that the results of this study can be placed. The primary trends in the secondary data analysis of quanitative data of Phase I of this research suggest that the strength and significance of the effects of student socio-economic background characteristics in predicting variation in students' attainment outcomes are lessening

over the four time points of this study, with the notable exception of the two measures of mother's and father's education. The importance and continued strength of mothers and fathers education is echoed in the international literature, for example, Ma, Yuan, and Luo's (2016) recent study in China, and Pokropek, Borgonovi, and Jakubowski's (2015) recent study using 33 OCED countries and PISA data. In Brazil, Valente's (2017) very recent work also supports the findings of this research, that measures of mother's and father's education continues to play a strong role in predicting differences in students' educational outcomes and achievement. It has been suggested by the researcher previously in this study that it is possible that as extreme poverty levels begin to be addressed by a slew of social policies in Brazil (e.g. Bolsa Escola and Bolsa Familia) and the socio-economic conditions of students improve (see Mowat, 2018 for example) as the descriptive patterns of this study suggest they have, that school level predictors may gain in significance and/or strength and therefore become more important as Brazil moves forward in its National Plan for Education. This tentative conclusion is supported by the research literature that finds that between 5% and 18% (Sammons, 2007) or even 25% more recently (Strand, 2014), of the variance in student outcomes can be explained (statistically) at the school level. This variance in student outcomes that is attributable to schools can reduce the impact of a student's own disadvantaged socio-economic status through resources and spending on education (Bodovski, Jeon, & Byun, 2017; Greenwald, Hedges, & Laine, 1996; Gustafsson, Nilsen, & Hansen, 2015; Schlicht et al., 2010; Stadelmann-Steffen, 2012; Wenglinsky, 1998). Also noted in the data on which this research was based was that the amount of variation in student scores becomes increasingly attributable to the school district (level 3) over the four time points of the study. This trend is worrisome as disparities between school districts due to unequal or inequitable distribution of resources has the potential to perpetuate inequalities in student socio-economic background characteristics as seen in Turkey (Köseleci, 2015), Sweden (Hansen et al., 2011), and in the 2003 TIMSS data from 19 high income countries (Baird, 2012), for example.

Although it is acknowledged that schools and school resources impact students' outcomes and achievement (Greenwald et al., 1996; Grubb, 2008), agreement about which resources, for whom, why those particular resources, or in what combinations is elusive (e.g. Chudgar, Chandra, Iyengar, & Shanker 2015). For example, Johnson and Stevens (2006) and Kyriakides, Creemers, Antoniou, and Demetriou (2010b) noted the importance of school climate; Krugeger

(2003), Nye, Konstantopoulos, and Hedges (2004), Baird (2012), and Wenglinsky (1998) reported the importance of class sizes; Goldstein, Young, and Boyd (2008), Wang and Degol (2016), and Gregory, Cornell, and Fann (2012) suggested the importance of school safety; and Good, Wiley, and Florez (2009), and Scheerens (2014) denoted the importance of instructional time. Nonoyama-Tarumi, Hughes, and Willms (2015) suggested that small, focused studies can be used to assess gains in student achievement related to school resources and teacher development.

This study, although it began with general resources models, used the qualitative interview data from Phase II of the study to focus on finding out more about resources provided under the policy and the extent to which teachers believed these were making a difference in schools and student outcomes. These resources included infrastructure, textbooks, teacher supports, and teacher education levels. In Phase I of this study, infrastructure was identified as a statistically significant predictor of student outcomes in 7 of the 16 models of this study. The trends in the data of this study suggest that it is a slightly more significant predictor for mathematics than for Portuguese, and a more significant predictor in grades 4/5 than in grades 8/9. Infrastructure has been found to be a significant predictor of student outcomes in other developing countries recently, including India (Chudgar et al., 2015) and Turkey (Hacıeminoğlu, Ertepınar, Yılmaz-Tüzün, & Çakır, 2015). In addition, other studies in Brazil have also found infrastructure to be of continued significance on student outcomes (Murillo & Román, 2011; J. Soares & Alves, 2013). This result, therefore, is in line with other international studies of school resources, including ones in Brazil.

The variable ‘textbooks received’ was not found to be a significant predictor of student scores in any of the 16 models of this study. This result stands in contrast to historic and recent studies such as Taniguchi's (2015) study of elementary students in rural Malawi, which found that a lack of textbooks was a significant predictor of grade repetition, and Chudgar et al. (2015)’s study in rural India. Further, in a larger scale analyses of 37 countries participating in the TIMSS assessment in 2011 (Bodovski, Byun, et al., 2017) found a significant effect of textbooks, and Bengmark, Thunberg, and Winberg, (2017)’s study concluded that textbooks are significant predictors of mathematics achievement in Sweden for some university students. These results

indicate that textbooks are commonly and recently found to be significant predictors of student achievement, as Brazilian teachers in this study also seem to think they are, across global contexts and even student age. The qualitative and quantitative findings of this study of Prova Brasil do not accord for the importance of textbooks. With regard to the results of this study, the textbooks received measure tested as a predictor in the models may be either a poor proxy for print resources that support learning in the classroom and/or underlying concept is more complex. It is suggested that a more in-depth exploration of textbook measures by means of factor analysis in a further study would be able to better represent this concept as it is assumed that the underlying concept may be latent or more complex than the indicator used in this study. The benefit of using a mixed methods design and methodology is that a focus on only one approach may have missed this discrepancy as teachers viewed textbooks as very important while the statistically analysis suggested no effect.

In Phase I of this study, teacher support was identified as the most significant predictor of all of the school level predictors in the multilevel analyses, being significant in 10 of the 16 models of this study. Overall, teacher support was found to be equally significant in predicting students' scores on the Portuguese and mathematics assessments, and was slightly more significant in predicting grade 4/5 scores than in predicting 8/9 scores. There are some recent international studies that support the significance of individual teacher supports examined in this study, such as libraries (Chudgar et al., 2015), however, often studies have such widely varying definitions of school resources and subsequent composite predictors that comparison is difficult. In addition, school resources are likely to have compound or complex effects, including interaction effects with teacher education or "quality" (Nonoyama-Tarumi et al., 2015). The teacher support resources chosen for study in this research were included as additional predictors as a direct result of the qualitative interview findings of the Phase II of this research. This is an example of a specific 'point of intersection' between the two phases of the study. Although there is considerable support in recent literature regarding the effects of school resources on student outcomes (e.g. Chudgar, Chandra, Iyengar, & Shanker, 2015; Hacıeminoğlu, Ertepınar, Yılmaz-Tüzün, & Çakır, 2015; León & Valdivia, 2015; Mohammadpour & Shekarchizadeh, 2015; Rangel & Lleras, 2010), the results of this study and its variables are new to the literature. Taken together, the quantitative and qualitative findings of this study suggest that the kinds of teacher

support resources promoted by the Brazilian educational policies have had a positive effect on students' attainment outcomes and that these resources are also much valued by teachers in Paraiba, Brazil. The findings of this study, therefore, provide some support for the positive effects of recent policy developments in the Paraibano context.

Teachers interviewed in Phase II of this study also indicated that some educational resources, such as textbooks, technology resources like computers, and access to reasonable libraries had improved dramatically with the changes to educational policies in Brazil over the last ten years. These qualitative findings support and extend those from the quantitative analysis of Phase I, other than the discrepancy regarding textbooks noted above. Teachers believed that these improvements have had a substantially positive effect on teaching and learning in their classrooms. Teachers were in support of policies that brought additional resources into their classrooms but also cited many issues around the implementation of these policies including corruption and continuity of support (i.e. replacement of broken or outdated technology). Here the qualitative evidence adds to and extends the quantitative findings and increases understanding of some of the major problems the implementation of the resource policies entailed. Teachers' experiences with print resources, in the overwhelming number of cases, was that they had arrived in the last decade and were the basis upon which they were to centre their teaching. This is in stark contrast to the results of the Phase I results, which may indicate that the development of more or better Prova Brasil items that represent this construct more accurately may be needed as "textbooks received" was clearly not representative of the experiences of teachers. Technology resources were considered by teachers to have had little or no impact on students because of poor implementation in schools, but teachers still believed that in the longer run these resources have immense potential to improve student outcomes. In the cases where infotech resources were reported to have been available, teachers believed them to have had a major positive impact on the engagement of students in learning in the classroom. They reported that the interest of students to be piqued with the use of these more dynamic resources, and also believed the resources can be used by teachers to conduct their own research for more and better information and activities for students. As access to computers for students was problematic and scarce in the observations of the researcher in her school visits, teachers pointed to teacher access to computers with internet, photocopiers, and some educational videos as a temporary fix. If

teachers could access these supplementary and potentially more engaging resources, then perhaps the students could be engaged further in this way. The Phase I results of this study also align with these suggestions as teacher support was identified as the most significant predictor of student outcomes across subjects and grades on the Prova Brasil assessments. The researcher's field notes of her observations and the analysis of interviews with teachers revealed a mixed story of infrastructure. While it was clear that some schools have improved dramatically in terms of their infrastructure, some schools continued to have dirt floors, holes in the roof, and broken windows. The results of Phase I of the study suggested that student outcomes on the Prova Brasil assessment do improve as infrastructure improves perhaps because improved conditions for learning enhance motivation. It would appear that continued investment in infrastructure within Brazilian educational policies, as well as addressing clear discrepancies in infrastructure between schools and perhaps school districts, should be accorded more priority.

There is consensus in the literature that teachers affect student learning, and that some teachers are more effective than others at initiating learning (Boonen, Damme, & Onghena, 2014; Hattie, 2009; Kyriakides, Creemers, & Antoniou, 2009; León & Valdivia, 2015; Muijs et al., 2014a, 2014b). There is also evidence that the instructional quality of teachers mediates the effects of student socio-economic background characteristics (Baumert et al., 2010; Gustafsson et al., 2015; Hiebert & Grouws, 2007; Klieme, Pauli, & Reusser, 2009; Pianta & Hamre, 2009; Rjosk et al., 2014), making it of particular relevance to developing nations with newer public education systems and recently increased enrolment levels. With the understanding that teachers matter, the literature then diverges and a consensus on what matters, or what matters most, is not as evident (Grubb, 2008; Scheerens, Siedel, Witziers, Hendriks, & Doornekamp, 2005). This is likely due to a number of factors including what the desired outcome is, and due to the complexity of teaching and learning in classrooms (Kyriakides et al., 2009). Generally, the literature identifies qualities such as experience (e.g. Baird, 2012; Ma et al., 2016), background qualifications, attitudes and beliefs, and practices used (Barbara Nye, Konstantopoulos, & Hedges, 2014; Siedel & Shavelson, 2007), as well as the more defined constructs of subject specific pedagogical content knowledge, subject specific content knowledge, and general pedagogical knowledge as outlined in the review of the literature section of this thesis (Baumert et al., 2010; Shulman, 1986, 1987). The DASI model was chosen to guide this research because of its explicit

multilevel structure, the way it focuses on interconnections between levels, and its ability to be used well in mixed methods research.

This research focused on teacher education including content knowledge and pedagogical content knowledge by structuring the indicator in the quantitative Phase I analyses to privilege an undergraduate degree in pedagogy and a post-graduate license in Portuguese or mathematics. Pedagogical content knowledge has been shown in the research literature to be positively associated with student achievement (Baumert et al., 2010). Recently, pedagogical content knowledge has been shown to have a positive effect on students in the developed world, including Sweden using the 2001 PIRLS data and a sample of 10,000 students (Myrberg, 2007), in Germany using data from 39 secondary school teachers and 827 early (aged 14 years on average) high school students (Förtsch, Werner, von Kotzebue, & Neuhaus, 2016), and in New Zealand in a study between 2004 and 2009 that included 22,506 students in 195 schools. There is also recent data indicating the strength and importance of pedagogical content knowledge in the developing world, including in Cambodia (J. Marshall et al., 2009; Ngo, 2012), Botswana (Carnoy & Arends, 2012), and in other Latin American countries like Guatemala (J. H. Marshall & Sorto, 2012), and Peru (Cueto, León, Sorto, & Miranda, 2017). 'Teacher Education Level', as a proxy for teacher qualification levels and hence pedagogical and content knowledge, was the second most statistically significant of the school level predictors in the quantitative analysis, and was significant in 8 of the 16 models. The trends observed in Phase I were that it was equally significant and positive in predicting students' scores in both Portuguese and mathematics and was slightly more significant in grades 4/5 than it was in grades 8/9. Teacher education maintained its statistical significance over the four time points of the models; it was just as significant in 2007 as it was in 2013. The 2013 data is problematic in this study. As the effects of teacher education show more statistical significant positive effects over the time points of this study, in line with the changing Brazilian policies, in 2013 the descriptive data suggests that the teacher education level drops. This seems to be unlikely given that teachers do not achieve lower degrees over time and Brazilian policies continued to increase demands on teachers in terms of their education level. For these reasons the 2013 data trends were interpreted with great caution.

Teachers interviewed in this study were unanimous in their support for the increased regulation and rigour of teacher qualification levels introduced via the new Brazilian educational policies. Teachers also noted the increased access to teacher qualification and professional development programs through satellite university campuses in more remote areas of the state and through online courses. They agreed that the quality of these programs was generally very good, but with online courses being the least valued and considered the least effective. Teachers unanimously agreed that increased education, certification, and qualification of teachers, and the rigorous enforcement of these policies has had, by far, the largest positive impact on teaching and learning in the classroom. Teachers in this study, however, felt that the new requirements were not accompanied by appropriate levels of professionalization, especially salary valorization, and support for in-service programs.

School District Level (Level 3) variation, almost without exception, increases over the four time points of this study in both subjects and grades. This is an important finding given the decreasing significance of socio-economic factors (other than mothers and fathers education) over time, and the increasing significance of predictors related to resources in schools. It is suggested by the researcher based on these findings, that as more resources arrive in schools, a disparity may be growing between school districts in their distribution of these resources. In the Phase II interviews of this study, teachers interviewed drew attention to this growing disparity between school districts, thus the quantitative and qualitative findings support each other on this point. Some teachers indicated that a lack of oversight had lead to corruption and the mismanagement of resources by local authorities. In support of the observations of the teachers, it was noted by the researcher that there exists a surprisingly wide variation in school conditions and access to resources across the 9 sample sites visited by the researcher. As noted previously, this is not a uniquely Brazilian phenomenon, but it is a threat to an equitable and quality education system (Baird, 2012; Hansen et al., 2011; Köseleci, 2015).

The findings of this study have implications for three main bodies of literature including mixed methods research, DASI model literature, and educational effectiveness literature and school improvement for Latin America. The sequential integrated mixed methods structure of this research had many advantages. These benefits are best viewed through the *Points of Intersection*

(Section 3.10) where the results of preliminary Phase I models informed the development of a relevant, structured, and focused interview schedule for Phase II of the study. Phase II, in turn, allowed for a more refined and specific examination of the enormous Prova Brasil data sets. Instead of 'fishing for correlations' a common critique of early school effectiveness studies, the application of the DASI model to both the quantitative and the qualitative phases of the research using a mixed methods design to structure this investigation led to the development of relevant tools and models from which to examine the impact of Brazilian educational policies concerned with increasing levels of school resources and teacher qualification levels in the state of Paraiba in Brazil. The sequential combination of the Phases of this study allowed for a more nuanced and contextual understanding of the quantitative findings of this chapter, and the quantitative findings also helped shape the empirical investigation of the experiences and perceptions of teachers via semi-structured interviews. When combined, these results produced a more meaningful and complete picture of the changes in schools related to recent policy developments that were intended to promote teaching quality and enhance student outcomes through increased resources and teacher qualification.

The most recent theoretical development in educational effectiveness studies, the DASI model, has been used as the framework of this study. The researcher found the DASI model to be an effective organizational structure that elicited rich data from teachers on changes in school resources and teacher qualification over time. The theoretical framework also enabled clear development of coding categories and interpretation. In combination with a mixed methods methodology, the explorations of *frequency* were complimentary and augmentative to the information gathered on the *focus*, *stage*, *quality*, and *differentiation* of school resource and teacher qualification changes. This more in-depth observations of changes over time in schools allowed the researcher to qualify the quantitative findings of Phase I and support the trends observed in Phase II of the study in order to provide evidence for the continuation of current Brazilian policies as well as suggestions for adjustments to the policies.

The results of this study support and extend the findings of other educational effectiveness research literature in Latin America. Although the socio-economic background characteristics of students remains a significant predictor of student outcomes, this influence was found to be

declining over time as conditions in Brazil improve overall. This is likely due, at least in part, to Brazil's Bolsa Escola program. Despite this the qualitative interviews indicate little teacher support for this policy despite some recognition of its positive effect on student attendance. As the significance and strength of the measured effects of student socio-economic background characteristics declined over the four time points, school based predictors were becoming more important. Infrastructure continues to be a significant predictor of student outcomes. Teacher support, especially libraries, teacher access to computers with internet, and dynamic audio-visual resources like DVDs was found to be a significant predictor of student scores on the Prova Brasil assessment. Teachers also cited that textbooks were integral to improving student outcomes, although this was not supported in the analysis of Prova Brasil data conducted in Phase I of the research. Teacher education levels have been important and continue to be important across all time points, grades, and subjects and teachers believe that continued education for teachers has the most dramatic impact on teaching and learning in the classroom when compared with other resources. It was noted in this study that resources are not arriving equally across schools or school districts. Disparities appear to be growing between areas in Brazil as some districts "have" and others "have not". The quantitative data analysis revealed growing variance in student outcomes at the district level, while the qualitative findings revealed that teachers believe that corruption and mismanagement of resources at the local level are responsible for this growing divide.

Limitations

There are some limitations to the findings of this study. The first is that the prior attainment of student intakes for each school is not controlled for over the four model time points in Phase I of this study. Unfortunately, the removal of schools that did not appear in the data set in all four time points (so that prior attainment for each school could be controlled for) left the researcher with a sample size two-thirds smaller. Descriptive analysis of the smaller sample, containing only schools appearing in all four time points, revealed a tendency for the schools to be larger, more wealthy, and have more resources than the sample that contained all schools in all years. As the primary purpose of this study is to identify and observe how resources may affect attainment in the state of Paraiba, the larger sample was retained and therefore previous attainment at the school level could not be controlled for in order to explore change in results

over time. Another major limitation of this study is the 2013 data which appeared, especially with regard to the teacher education level data, to be at odds with the trends in previous years. The 2013 data set was deemed less reliable than in earlier years and so findings for this year should be interpreted with caution. Finally, a suggestion for the improvement of future models would include the exploration of better measures of print resources, like textbooks, using factor analysis or structural equation modelling in order to develop a better set of indicators for these classroom resources.

Due to the large geographic distance between the researcher and the fieldwork, the limited time frame of the fieldwork, and the linguistic and cultural challenges faced by the researcher in this undertaking (despite having taught previously in Brazil and speaking Portuguese fluently), great care was taken to develop a purposive sample that adequately addresses the research questions posed by this study. The sample was, however, limited by dangers in the field. Viral infections including malaria and zika were present in the field and the researcher chose to avoid the eastern parts of the state of Paraiba to lessen this risk. This decision limited the sample to the western half of the state. Further, due to the dangers associated with a foreigner entering particular neighbourhoods, some schools in Joao Pessoa had to be avoided by the researcher. These decisions, while in the best interests of the safety of the researcher, acted to reduce the representativeness of the interview sample. It is possible that the worst school conditions in Paraiba were not observed by the researcher as these most under-developed and/or impoverished areas had to be avoided.

Conclusion

Beginning in the late 1990s, Brazil developed and implemented new educational policies that increased funding for public education in the hopes of improving enrolment and outcomes for students in Brazil. Brazil's progress towards its goals of equitable access to quality education is significant. By 2011 Brazil reported an average national enrolment rate of 95% for children aged 5 to 14, and 77% for 15-19 year olds. Recent PISA statistics for Brazil show improvement on the mathematics assessment between 2006 and 2015 (PISA, 2015). The reading results have also improved, with a large portion of the growth occurring between 2006 and 2009 (PISA, 2015). Importantly, Brazil has reached the OECD average for how socio-economic background factors impact student performance, displaying a dramatic decrease in the effect of socio-economic factors between the years of 2006 and 2015. Additionally, Brazil is currently *above* the OECD average in gender equality, with girls performing almost as well as boys on the mathematics assessment and better than boys on the reading assessment (PISA, 2015). Paraiba is located in the north-east of Brazil and is one of Brazil's poorest states (Bruns et al., 2012). Paraiba, with a primarily publicly funded elementary system that has actively pursued federal funding for education, provides great advantages to researchers exploring the extent to which educational achievement is related to the increased funding and policy directives implemented by the Brazilian Ministry of Education.

The over-arching aim of this study was to examine the effects of Brazilian educational policies that have increased funding for school resources and teacher qualification on students' Prova Brasil Portuguese and mathematics achievement and how these policies have affected schools and students from the perspectives and experiences of teachers teaching in Paraiba. The central research question that guides this study is: How have recent Brazilian educational policies related to increased resources and teacher qualification (i.e. FUNDEF, FUNDEB and the National Policy on Teacher Education) affected schools and students' educational outcomes in Paraiba, Brazil? This study used a pragmatic (Dewey, 1910; James, 1906b; Peirce, 1878) philosophical grounding as it can be applied to educational research (MacIntyre, 1984; Pring, 2000; Stenhouse, 1975), and the DASI theoretical models five dimensions (*frequency*, *focus*, *stage*, *quality*, and *differentiation*, see Creemers & Kyriakides, 2006 for more details) to frame a

sequential integrated mixed methods study. The research was organized into two Phases, Phase I used multilevel models to explore the *frequency* of school resources and teacher qualification levels quantitatively, and Phase II explored teacher perceptions and experiences of the *focus*, *stage*, *quality*, and *differentiation* of these resources.

The findings of this study are that infrastructure is a significant predictor of student outcomes on the Prova Brasil assessment and is a slightly more significant predictor for mathematics than for Portuguese, and a much more significant predictor in grades 4/5 than in grades 8/9. Textbooks being received by schools was not a significant predictor of student scores in this study. Teachers' experiences with print resources stood in stark contrast to this finding as teachers believed textbooks to be integral to teaching and learning in the classroom. It is suggested by the researcher that the textbooks received predictor used in this study is likely to be either a poor proxy for print resources that support learning in the classroom and/or underlying concept is more complex. Teacher support was the most significant predictor of student scores on the Prova Brasil assessments and was equally significant in predicting students' scores on the Portuguese and mathematics assessments, and was slightly more significant in predicting grade 4/5 scores than in predicting 8/9 scores. Teachers in this study have noticed that educational resources, like textbooks, technology resources like computers, and access to reasonable libraries had improved dramatically over the last ten years and they believed that these improvements have had a positive effect on teaching and learning in the classroom. Teachers cited many issues around the implementation of these policies including corruption and continuity of support but teachers believed that these resources have the potential to improve student outcomes. In the cases where infotech resources have been available, teachers believe them to have had a major impact on the engagement of students in learning in the classroom. As access to computers for students appeared to be difficult, teachers pointed to teacher access to computers with internet, photocopiers, and some educational videos as a temporary fix.

The Phase I results of this study support these suggestions regarding positive effects. A notable finding of this research is the increasing amount of variation in students' Prova Brasil scores attributable to the school district level in the multilevel analyses across time. This quantitative finding is supported by the qualitative evidence of both the field observations of the researcher

and the interviews with the teachers of this study. Teachers in this study suggested that a lack of oversight or accountability had led to corruption and the mismanagement of resources by some local authorities.

Teacher Education Level, as a proxy for teacher qualification levels, was the second most significant of the school level predictors. Teacher qualification levels were equally significant for Portuguese and mathematics, and slightly more significant in grades 4/5 than it was in grades 8/9. Teacher education maintained its significance over the four time points of the models; it was just as significant in 2007 as it was in 2013. Teachers interviewed in this study were unanimous in their support of Brazilian educational policies aimed at increasing the teacher qualification levels required for practicing teachers. Teachers also unanimously agreed that increased education for and qualification of teachers have had the largest positive impact on teaching and learning in the classroom.

The results of this study have implications for mixed methods research wherein the successful mixing of methods and the integration and synthesis of findings has led to greater depth and meaning in the results of this study. The researcher also notes the utility of the DASI model as a theoretical structure wherein the quantitative findings were able to augment and empirically support the qualitative findings and vice versa. This enabled the researcher to give detailed descriptions of why or how specific school resources or teacher qualification policies might be working to improve student outcomes, and suggest possible ways to adjust policy and practice to improve the effectiveness of the policies. Finally, the findings of this research accord with other findings in Latin American educational effectiveness research. Student socio-economic background characteristics continue to be significant predictors of student outcomes, but the impact of these factors seems to have decreased over the timeframe of the research. Infrastructure and school resources, especially teacher supports also continue to be significant predictors of student success. Finally, teacher education is a significant predictor of student outcomes on the Prova Brasil assessments across time points, grades, and subjects, and teachers believe that recent Brazilian policy changes increasing the education and qualification requirements for teachers have had the largest and most positive effects on teaching and learning in the classroom. The implications of the results of this study for Brazilian educational policy

are how the DASI model and the mixed methods approach of this study supported the researcher in not only understanding what parts of Brazilian resource and teacher qualification policies are affecting student outcomes, but also why these resources may be valuable and how teachers are using these resources. Further, an examination of why certain resources may be working and how some teachers may wish to see resources arrive and be used in the future, helps to link the results of this educational effectiveness study to the school improvement literature.

The findings of this study are limited for a number of reasons including the lack of control for prior attainment of student intakes at the school level in Phase I of the study, the irregularities observed in the 2013 data, and both the practical and the safety conditions of the field research that limited the Phase II sample. Areas of further research suggested by the researcher are the further exploration of school district variables that may be responsible for the growing disparities between districts, an exploration of other teacher qualification variables that, for example, prioritize pedagogical knowledge over subject knowledge, and the improvement of the multilevel models presented in Phase I of this research. Specifically, the models could be improved if student prior attainment at the school level could be controlled for without biasing the sample, using a three level multiple imputation strategy for the missing data where the technological resources are available for what is currently a complex and computationally demanding process, and linking students to teachers in the Prova Brasil data so teacher data did not have to be aggregated to the school level. In addition, further qualitative research on the implementation of the various policies in schools in different districts could be extremely helpful, perhaps through a series of case studies to further illuminate the processes of distribution and use of resources by school districts, schools, and teachers and how this may better support student learning.

It is suggested that future research using the Prova Brasil sets could use three level multilevel modelling as in future years the sample size and consistency of school participation across years may increase. Other potential avenues of exploration of the Prova Brasil data sets include multilevel structural equation modelling employed simultaneously to study the effects of the independent variables on achievement in both subjects at the same time as well as relationships among the independent variables. It is even possible to explore the use of item response theory models to calculate student background factors as most of the student background characteristic

factors are ordinal scale variables. A closer or more nuanced investigation of how print resources used in the classroom would also be important as the results of this study are mixed and clarification is required on this point. Finally, classroom observations of resource use and teacher pedagogical or content knowledge in the classroom may be valuable in further examining how increased school resources and teacher qualification levels may be affecting schools and students in Paraiba, Brazil.

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Exploring School Resource and Teacher Qualification Policies, their Implementation and Effects on Schools and Students' Educational Outcomes in Brazil

APPENDIX



Christine Leigh Paget
Department of Education
University of Oxford
Kellogg College

Supervisors:
Professor Jo-Anne Baird
Professor Pam Sammons

Doctorate of Philosophy
Department of Education, University of Oxford
March 2018

APPENDIX

Appendix I

Appendix I is organized by background survey and by year. Below is a detailed list order of the background surveys as they appear.

2007 Student Survey
2009 Student Survey
2011 Student Survey
2013 Student Survey

2007 Teacher Survey
2009 Teacher Survey
2011 Teacher Survey
2013 Teacher Survey

2007 Principal Survey
2009 Principal Survey
2011 Principal Survey
2013 Principal Survey

2007 School Survey
2009 School Survey
2011 School Survey
2013 School Survey

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SAEB E PROVA BRASIL – 2007

CADERNO

PARA USO DO APLICADOR

- ☐ ← Aluno ausente
- ☐ ← Aluno presente e NÃO respondeu a prova
- ☐ ← Aluno respondeu no Caderno de Prova, mas NÃO preencheu a Folha de Respostas
- ☐ ← Aluno transcreveu corretamente as marcações do Caderno de Prova para a Folha de Respostas
- ☐ ← ANE

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ESCREVA O SEU NOME COMPLETO

CÓDIGO DA TURMA

Folha de Respostas

8.ª Série (9.º Ano) do Ensino Fundamental

BLOCO 1		BLOCO 2	
1	☐A ☐B ☐C ☐D	14	☐A ☐B ☐C ☐D
2	☐A ☐B ☐C ☐D	15	☐A ☐B ☐C ☐D
3	☐A ☐B ☐C ☐D	16	☐A ☐B ☐C ☐D
4	☐A ☐B ☐C ☐D	17	☐A ☐B ☐C ☐D
5	☐A ☐B ☐C ☐D	18	☐A ☐B ☐C ☐D
6	☐A ☐B ☐C ☐D	19	☐A ☐B ☐C ☐D
7	☐A ☐B ☐C ☐D	20	☐A ☐B ☐C ☐D
8	☐A ☐B ☐C ☐D	21	☐A ☐B ☐C ☐D
9	☐A ☐B ☐C ☐D	22	☐A ☐B ☐C ☐D
10	☐A ☐B ☐C ☐D	23	☐A ☐B ☐C ☐D
11	☐A ☐B ☐C ☐D	24	☐A ☐B ☐C ☐D
12	☐A ☐B ☐C ☐D	25	☐A ☐B ☐C ☐D
13	☐A ☐B ☐C ☐D	26	☐A ☐B ☐C ☐D

BLOCO 3		BLOCO 4	
1	☐A ☐B ☐C ☐D	14	☐A ☐B ☐C ☐D
2	☐A ☐B ☐C ☐D	15	☐A ☐B ☐C ☐D
3	☐A ☐B ☐C ☐D	16	☐A ☐B ☐C ☐D
4	☐A ☐B ☐C ☐D	17	☐A ☐B ☐C ☐D
5	☐A ☐B ☐C ☐D	18	☐A ☐B ☐C ☐D
6	☐A ☐B ☐C ☐D	19	☐A ☐B ☐C ☐D
7	☐A ☐B ☐C ☐D	20	☐A ☐B ☐C ☐D
8	☐A ☐B ☐C ☐D	21	☐A ☐B ☐C ☐D
9	☐A ☐B ☐C ☐D	22	☐A ☐B ☐C ☐D
10	☐A ☐B ☐C ☐D	23	☐A ☐B ☐C ☐D
11	☐A ☐B ☐C ☐D	24	☐A ☐B ☐C ☐D
12	☐A ☐B ☐C ☐D	25	☐A ☐B ☐C ☐D
13	☐A ☐B ☐C ☐D	26	☐A ☐B ☐C ☐D

QUESTIONÁRIO DO ALUNO (a ser respondido após a prova)

1. Sexo:
☐A Masculino. ☐B Feminino.

2. Como você se considera?
☐A Branco(a). ☐C Preto(a). ☐E Indígena.
☐B Pardo(a). ☐D Amarelo(a).

3. Qual é o mês do seu aniversário?
☐A Janeiro. ☐E Maio. ☐I Setembro.
☐B Fevereiro. ☐F Junho. ☐J Outubro.
☐C Março. ☐G Julho. ☐K Novembro.
☐D Abril. ☐H Agosto. ☐L Dezembro.

4. Em que ano você nasceu?
☐A 1994 ou depois. ☐D 1991. ☐G 1988.
☐B 1993. ☐E 1990. ☐H 1987 ou antes.
☐C 1992. ☐F 1989.

5. Na sua casa tem televisão em cores?
☐A Sim, uma. ☐B Sim, duas. ☐C Sim, três ou mais. ☐D Não tem.

6. Na sua casa tem rádio?
☐A Sim, um. ☐B Sim, dois. ☐C Sim, três ou mais. ☐D Não tem.

7. Na sua casa tem videocassete ou DVD?
☐A Sim. ☐B Não.

8. Na sua casa tem geladeira?
☐A Sim, uma. ☐B Duas ou mais. ☐C Não tem.

9. Na sua casa tem freezer separado da geladeira?
☐A Sim. ☐B Não. ☐C Não sei.

10. Na sua casa tem uma máquina de lavar roupa? (Não é tanquinho)
☐A Sim. ☐B Não.

11. Na sua casa tem aspirador de pó?
☐A Sim. ☐B Não.

12. Na sua casa tem carro?
☐A Sim, um. ☐B Sim, dois. ☐C Sim, três ou mais. ☐D Não.

13. Na sua casa tem um computador?
☐A Sim, com internet. ☐B Sim, sem internet. ☐C Não.

14. Na sua casa tem banheiro?
☐A Sim, um. ☐C Sim, três. ☐E Não.
☐B Sim, dois. ☐D Sim, mais de três.

15. Na sua casa trabalha alguma empregada doméstica?
☐A Sim, uma diarista, uma ou duas vezes por semana.
☐B Sim, uma, todos os dias úteis.
☐C Sim, duas ou mais, todos os dias úteis.
☐D Não.

16. Na sua casa tem quartos para dormir?
A Sim, um. C Sim, três. E Não.
B Sim, dois. D Sim, quatro ou mais.

17. Quantas pessoas moram com você?
A Moro sozinho(a) ou com mais 1 pessoa.
B Moro com mais 2 pessoas.
C Moro com mais 3 pessoas.
D Moro com mais 4 ou 5 pessoas.
E Moro com mais 6 a 8 pessoas.
F Moro com mais do que 8 pessoas.

18. Você mora com sua mãe?
A Sim.
B Não.
C Não. Moro com outra mulher responsável por mim.

19. Até que série sua mãe ou a mulher responsável por você estudou?
A Nunca estudou ou não completou a 4.ª série (antigo primário).
B Completou a 4.ª série, mas não completou a 8.ª série (antigo ginásio).
C Completou a 8.ª série, mas não completou o Ensino Médio (antigo 2.º grau).
D Completou o Ensino Médio, mas não completou a Faculdade.
E Completou a Faculdade.
F Não sei.

20. Sua mãe ou a mulher responsável por você sabe ler e escrever?
A Sim. B Não.

21. Você vê sua mãe ou a mulher responsável por você lendo?
A Sim. B Não.

22. Você mora com seu pai?
A Sim. C Não. Moro com outro homem responsável por mim.
B Não.

23. Até que série seu pai ou o homem responsável por você estudou?
A Nunca estudou ou não completou a 4.ª série (antigo primário).
B Completou a 4.ª série, mas não completou a 8.ª série (antigo ginásio).
C Completou a 8.ª série, mas não completou o Ensino Médio (antigo 2.º grau).
D Completou o Ensino Médio, mas não completou a Faculdade.
E Completou a Faculdade.
F Não sei.

24. Seu pai ou o homem responsável por você sabe ler e escrever?
A Sim. B Não.

25. Você vê seu pai ou o homem responsável por você lendo?
A Sim. B Não.

26. Com que freqüência seus pais ou responsáveis vão à reunião de pais?
A Sempre ou quase sempre. C Nunca ou quase nunca.
B De vez em quando.

27. Seus pais ou responsáveis incentivam você a estudar?
A Sim. B Não.

28. Seus pais ou responsáveis incentivam você a fazer o dever de casa e os trabalhos da escola?
A Sim. B Não.

29. Seus pais ou responsáveis incentivam você a ler?
A Sim. B Não.

30. Seus pais ou responsáveis incentivam você a ir à escola e não faltar às aulas?
A Sim. B Não.

31. Seus pais ou responsáveis conversam com você sobre o que acontece na escola?
A Sim. B Não.

32. Além dos livros escolares, quantos livros têm em sua casa?
A O bastante para encher uma prateleira (1 a 20 livros).
B O bastante para encher uma estante (21 a 100 livros).
C O bastante para encher várias estantes (mais de 100 livros).
D Nenhum.

33. Em dia de aula, quanto tempo você gasta assistindo TV?
A 1 hora ou menos. C 3 horas. E Não assisto TV.
B 2 horas. D 4 horas ou mais.

34. Em dia de aula, quanto tempo você gasta fazendo trabalhos domésticos em casa?
A 1 hora ou menos. D 4 horas ou mais.
B 2 horas. E Não faço trabalhos domésticos.
C 3 horas.

35. Você trabalha fora de casa?
A Sim. B Não.

36. Quando você começou a estudar?
A No maternal (jardim de infância). C Na primeira série.
B Na pré-escola. D Depois da primeira série.

37. Desde a quinta série, em que tipo de escola você estudou?
A Somente em escola pública.
B Somente em escola particular.
C Em escola pública e em escola particular.

38. Você já foi reprovado?
A Não. B Sim, uma vez. C Sim, duas vezes ou mais.

39. Você já abandonou a escola durante o período de aulas e ficou fora da escola o resto do ano?
A Não. B Sim, uma vez. C Sim, duas vezes ou mais.

40. Você gosta de estudar língua portuguesa?
A Sim. B Não.

41. Você faz o dever de casa de língua portuguesa?
A Sempre ou quase sempre. C Nunca ou quase nunca.
B De vez em quando. D O professor não passa dever de casa.

42. O professor corrige o dever de casa de língua portuguesa?
A Sempre ou quase sempre. C Nunca ou quase nunca.
B De vez em quando.

43. Você gosta de estudar matemática?
A Sim. B Não.

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44. Você faz o dever de casa de matemática?
A Sempre ou quase sempre. C Nunca ou quase nunca.
B De vez em quando. D O professor não passa dever de casa.

45. O professor corrige o dever de casa de matemática?
A Sempre ou quase sempre. C Nunca ou quase nunca.
B De vez em quando.

46. Seus professores elogiam ou dão parabéns quando você tira boas notas?
A Sempre ou quase sempre. C Nunca ou quase nunca.
B De vez em quando.

47. Quando você terminar a 8.ª série (9.º ano), você pretende:
A Somente continuar estudando. D Ainda não sei.
B Somente trabalhar.
C Continuar estudando e trabalhar.

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SAEB E PROVA BRASIL - 2009

CADERNO

NÃO ESCREVA NESTA ÁREA

ESCREVA O SEU NOME COMPLETO

Para uso do APLICADOR

- Aluno ausente →
- Aluno presente e NÃO respondeu a prova →
- Aluno respondeu no Caderno de Prova, mas NÃO preencheu a Folha de Respostas →
- Aluno transcreveu corretamente as marcações do Caderno de Prova para a Folha de Respostas →
- ANE →

RECURSOS PARA ANE

- Ledor → | Braile →
- Intérprete de Libras → | Lupa →
- Auxílio Preenchimento → | Prova Ampliada →

Folha de Respostas da Prova — 8ª Série (9º Ano) do Ensino Fundamental

BLOCO 1		BLOCO 2	
1	A B C D	14	A B C D
2	A B C D	15	A B C D
3	A B C D	16	A B C D
4	A B C D	17	A B C D
5	A B C D	18	A B C D
6	A B C D	19	A B C D
7	A B C D	20	A B C D
8	A B C D	21	A B C D
9	A B C D	22	A B C D
10	A B C D	23	A B C D
11	A B C D	24	A B C D
12	A B C D	25	A B C D
13	A B C D	26	A B C D

BLOCO 3		BLOCO 4	
1	A B C D	14	A B C D
2	A B C D	15	A B C D
3	A B C D	16	A B C D
4	A B C D	17	A B C D
5	A B C D	18	A B C D
6	A B C D	19	A B C D
7	A B C D	20	A B C D
8	A B C D	21	A B C D
9	A B C D	22	A B C D
10	A B C D	23	A B C D
11	A B C D	24	A B C D
12	A B C D	25	A B C D
13	A B C D	26	A B C D

QUESTIONÁRIO DO ALUNO (a ser respondido após a prova)

1. Sexo:
   - Masculino. — Feminino.
2. Como você se considera?
   - Branco(a). — Amarelo(a).
   - Pardo(a). — Indígena.
   - Preto(a).
3. Qual é o mês do seu aniversário?
   - Janeiro. — Julho.
   - Fevereiro. — Agosto.
   - Março. — Setembro.
   - Abril. — Outubro.
   - Maio. — Novembro.
   - Junho. — Dezembro.
4. Em que ano você nasceu?
   - 1994 ou depois. — 1990
   - 1993 — 1989
   - 1992 — 1988
   - 1991 — 1987 ou antes.
5. Na sua casa tem televisão em cores?
   - Sim, uma. — Sim, três ou mais.
   - Sim, duas. — Não tem.
6. Na sua casa tem rádio?
   - Sim, um. — Sim, três ou mais.
   - Sim, dois. — Não tem.
7. Na sua casa tem videocassete ou DVD?
   - Sim. — Não.
8. Na sua casa tem geladeira?
   - Sim, uma.
   - Duas ou mais.
   - Não tem.
9. Na sua casa tem freezer junto a geladeira?
   - Sim. — Não tem. — Não sei.
10. Na sua casa tem freezer separado da geladeira?
    - Sim. — Não. — Não sei.
11. Na sua casa tem máquina de lavar roupa? (não é tanquinho)
    - Sim. — Não.
12. Na sua casa tem carro?
    - Sim, um. — Sim, três ou mais.
    - Sim, dois. — Não.
13. Na sua casa tem computador?
    - Sim, com internet.
    - Sim, sem internet.
    - Não.
14. Dentro de sua casa tem banheiro?
    - Sim, um. — Sim, mais de três.
    - Sim, dois. — Não.
    - Sim, três.
15. Na sua casa trabalha alguma empregada doméstica?
    - Sim, uma diarista, uma ou duas vezes por semana.
    - Sim, uma, todos os dias úteis.
    - Sim, duas ou mais, todos os dias úteis.
    - Não.
16. Na sua casa tem quartos para dormir?
    - Sim, um. — Sim, três.
    - Sim, dois. — Sim, quatro ou mais.

Continua no verso. →

PICSIS INFORMÁTICA CONSULPLAN_16.PIC

NÃO AMASSE, NÃO DOBRE NEM RASURE ESTA FOLHA.

Ministério da Educação — BRASIL UM PAÍS DE TODOS GOVERNO FEDERAL

SAEB E PROVA BRASIL - 2009

NÃO ESCREVA NESTA ÁREA

QUESTIONÁRIO DO ALUNO (a ser respondido após a prova)
2ª PARTE

17. Quantas pessoas moram com você?
- ☐ Moro sozinho(a) ou com mais 1 pessoa.
- ☐ Moro com mais 2 pessoas.
- ☐ Moro com mais 3 pessoas.
- ☐ Moro com mais 4 ou 5 pessoas.
- ☐ Moro com mais 6 ou 8 pessoas.
- ☐ Moro com mais do que 8 pessoas.

18. Você mora com sua mãe?
- ☐ Sim.
- ☐ Não.
- ☐ Não, moro com outra mulher responsável por mim.

19. Até que série sua mãe ou a mulher responsável por você estudou?
- ☐ Nunca estudou ou não completou a 4ª série (antigo primário).
- ☐ Completou a 4ª série, mas não completou a 8ª série (antigo ginásio).
- ☐ Completou a 8ª série, mas não completou o Ensino Médio (antigo 2º grau).
- ☐ Completou o Ensino Médio, mas não completou a Faculdade.
- ☐ Completou a Faculdade.
- ☐ Não sei.

20. Sua mãe ou a mulher responsável por você sabe ler e escrever?
- ☐ Sim. ☐ Não.

21. Você vê a sua mãe ou a mulher responsável por você lendo?
- ☐ Sim. ☐ Não.

22. Você mora com seu pai?
- ☐ Sim.
- ☐ Não.
- ☐ Não, moro com outro homem responsável por mim.

23. Até que série seu pai ou o homem responsável por você estudou?
- ☐ Nunca estudou ou não completou a 4ª série (antigo primário).
- ☐ Completou a 4ª série, mas não completou a 8ª série (antigo ginásio).
- ☐ Completou a 8ª série, mas não completou o Ensino Médio (antigo 2º grau).
- ☐ Completou o Ensino Médio, mas não completou a Faculdade.
- ☐ Completou a Faculdade.
- ☐ Não sei.

24. Seu pai ou o homem responsável por você sabe ler e escrever?
- ☐ Sim. ☐ Não.

25. Você vê o seu pai ou o homem responsável por você lendo?
- ☐ Sim. ☐ Não.

26. Com que frequência seus pais ou responsáveis vão à reunião de pais?
- ☐ Sempre ou quase sempre.
- ☐ De vez em quando.
- ☐ Nunca ou quase nunca.

27. Seus pais ou responsáveis incentivam você a estudar?
- ☐ Sim. ☐ Não.

28. Seus pais ou responsáveis incentivam você a fazer o dever de casa e os trabalhos da escola?
- ☐ Sim. ☐ Não.

29. Seus pais ou responsáveis incentivam você a ler?
- ☐ Sim. ☐ Não.

30. Seus pais ou responsáveis incentivam você a ir à escola e não faltar às aulas?
- ☐ Sim. ☐ Não.

31. Seus pais ou responsáveis conversam com você sobre o que acontece na escola?
- ☐ Sim. ☐ Não.

32. Além dos livros escolares, quantos livros têm em sua casa?
- ☐ O bastante para encher uma prateleira (1 a 20 livros).
- ☐ O bastante para encher uma estante (21 a 100 livros).
- ☐ O bastante para encher várias estantes (mais de 100 livros).
- ☐ Nenhum.

33. Em dia de aula, quanto tempo você gasta assistindo TV, navegando na internet ou jogando jogos eletrônicos?
- ☐ 1 hora ou menos.
- ☐ 2 horas.
- ☐ 3 horas.
- ☐ 4 horas ou mais.

34. Em dias de aula, quanto tempo você gasta fazendo trabalhos domésticos?
- ☐ 1 hora ou menos.
- ☐ 2 horas.
- ☐ 3 horas.
- ☐ 4 horas ou mais.
- ☐ Não faço trabalhos domésticos.

35. Você trabalha fora de casa?
- ☐ Sim. ☐ Não.

36. Quando você entrou na escola?
- ☐ No maternal (jardim de infância).
- ☐ Na pré-escola.
- ☐ Na primeira série.
- ☐ Depois da primeira série.

37. Desde a quinta série, em que tipo de escola você estudou?
- ☐ Somente em escola pública.
- ☐ Somente em escola particular.
- ☐ Em escola pública e em escola particular.

38. Você já foi reprovado?
- ☐ Não.
- ☐ Sim, uma vez.
- ☐ Sim, duas vezes ou mais.

39. Você já abandonou a escola chegando a perder o ano letivo?
- ☐ Não.
- ☐ Sim, uma vez.
- ☐ Sim, duas vezes ou mais.

40. Você gosta de estudar língua portuguesa?
- ☐ Sim. ☐ Não.

41. Você faz o dever de casa de língua portuguesa?
- ☐ Sempre ou quase sempre.
- ☐ De vez em quando.
- ☐ Nunca ou quase nunca.

42. O professor corrige o dever de casa de língua portuguesa?
- ☐ Sempre ou quase sempre.
- ☐ De vez em quando.
- ☐ Nunca ou quase nunca.

43. Você gosta de estudar matemática?
- ☐ Sim. ☐ Não.

44. Você faz o dever de casa de matemática?
- ☐ Sempre ou quase sempre.
- ☐ De vez em quando.
- ☐ Nunca ou quase nunca.

45. O professor corrige o dever de casa de matemática?
- ☐ Sempre ou quase sempre.
- ☐ De vez em quando.
- ☐ Nunca ou quase nunca.

46. Seus professores elogiam ou dão parabéns quando você tira boas notas?
- ☐ Sempre ou quase sempre.
- ☐ De vez em quando.
- ☐ Nunca ou quase nunca.

47. Quando você terminar a 8ª série (9º ano), você pretende:
- ☐ Somente continuar estudando.
- ☐ Somente trabalhar.
- ☐ Continuar estudando e trabalhando.
- ☐ Ainda não sei.

NÃO AMASSE, NÃO DOBRE NEM RASURE ESTA FOLHA.

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QUESTIONÁRIO DO ALUNO

9.º ANO (8.ª SÉRIE) DO ENSINO FUNDAMENTAL

22. Você mora com seu pai?
(A) Sim.
(B) Não. (passe para questão 26)
(C) Não, moro com outro homem responsável por mim.

23. Até que série seu pai ou o homem responsável por você estudou?
(A) Nunca estudou.
(B) Não completou a 4.ª série (antigo primário).
(C) Completou a 4.ª série, mas não completou a 8.ª série (antigo ginásio).
(D) Completou a 8.ª série, mas não completou o Ensino Médio (antigo 2.º grau).
(E) Completou o Ensino Médio, mas não completou a Faculdade.
(F) Completou a Faculdade.
(G) Não sei.

24. Seu pai ou homem responsável por você sabe ler e escrever?
(A) Sim. (B) Não. (C) Não sei.

25. Você vê o seu pai ou homem responsável por você lendo?
(A) Sim. (B) Não.

26. Com que frequência seus pais ou responsáveis vão à reunião de pais?
(A) Sempre ou quase sempre. (C) Nunca ou quase nunca.
(B) De vez em quando.

27. Seus pais ou responsáveis incentivam você a estudar? (A) Sim. (B) Não.

28. Seus pais ou responsáveis incentivam você a fazer o dever de casa e os trabalhos da escola?
(A) Sim. (B) Não.

29. Seus pais ou responsáveis incentivam você a ler? (A) Sim. (B) Não.

30. Seus pais ou responsáveis incentivam você a ir a escola e não faltar às aulas?
(A) Sim. (B) Não.

31. Seus pais ou responsáveis conversam com você sobre o que acontece na escola?
(A) Sim. (B) Não.

Você lê:	Sempre ou quase sempre	De vez em quando	Nunca ou quase nunca
32. Jornais (inclusive os de distribuição gratuita).	A	B	C
33. Livros em geral.	A	B	C
34. Livros de literatura infanto-juvenil.	A	B	C
35. Revistas em geral.	A	B	C
36. Revistas em quadrinhos.	A	B	C
37. Revistas sobre comportamento, celebridades, esporte e TV.	A	B	C
38. *Sites* da internet.	A	B	C

Você Costuma:	Sempre ou quase sempre	De vez em quando	Nunca ou quase nunca
39. Frequentar bibliotecas.	A	B	C
40. Ir ao cinema.	A	B	C
41. Ver apresentações teatrais.	A	B	C
42. Ver apresentações musicais ou de dança.	A	B	C
43. Participar de festas abertas à comunidade.	A	B	C

44. Em dia de aula, quanto tempo você gasta assistindo à TV, navegando na internet ou jogando jogos eletrônicos?
(A) 1 hora ou menos. (C) 3 horas.
(B) 2 horas. (D) 4 horas ou mais.

45. Em dias de aula, quanto tempo você gasta fazendo trabalhos domésticos?
(A) 1 hora ou menos. (D) 4 horas ou mais.
(B) 2 horas. (E) Não faço trabalhos domésticos.
(C) 3 horas.

46. Você trabalha fora de casa? (A) Sim. (B) Não.

47. Quando você entrou na escola?
(A) Na creche (0 a 3 anos). (C) Na primeira série ou primeiro ano (6 a 7 anos).
(B) Na pré-escola (4 a 5 anos). (D) Depois da primeira série.

48. Desde a quinta série em que tipo de escola você estudou?
(A) Somente em escola pública.
(B) Somente em escola particular.
(C) Em escola pública e em escola particular.

49. Você já foi reprovado?
(A) Não. (C) Sim, duas vezes ou mais.
(B) Sim, uma vez.

50. Você já abandonou a escola durante o período de aulas e ficou fora da escola o resto do ano?
(A) Não. (C) Sim, duas vezes ou mais.
(B) Sim, uma vez.

51. Você gosta de estudar língua portuguesa? (A) Sim. (B) Não.

52. Você faz o dever de casa de língua portuguesa?
(A) Sempre ou quase sempre. (C) Nunca ou quase nunca.
(B) De vez em quando.

53. O professor corrige o dever de casa de língua portuguesa?
(A) Sempre ou quase sempre. (C) Nunca ou quase nunca.
(B) De vez em quando.

54. Você gosta de estudar matemática? (A) Sim. (B) Não.

55. Você faz o dever de casa de matemática?
(A) Sempre ou quase sempre. (C) Nunca ou quase nunca.
(B) De vez em quando.

56. O professor corrige o dever de casa de matemática?
(A) Sempre ou quase sempre. (C) Nunca ou quase nunca.
(B) De vez em quando.

57. Você utiliza a biblioteca ou sala de leitura da sua escola?
(A) Sempre ou quase sempre. (C) Nunca ou quase nunca.
(B) Eventualmente. (D) A escola não possui.

58. Quando você terminar o 9º ano(8ª série), você pretende:
(A) Somente continuar estudando. (C) Continuar estudando e trabalhar.
(B) Somente Trabalhar. (D) Ainda não sei.

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SAEB

ProvaBrasil 2011

Avaliação do Rendimento Escolar

9º ANO (8ª SÉRIE) DO ENSINO FUNDAMENTAL

PLANO DE DESENVOLVIMENTO DA EDUCAÇÃO

Nome do aluno:
Xxxxxxxxx Xxxxxx xx Xxxxxxxx Xxxx
Xxxxx Xxxxxx xx Xxxxxxxx

ID Censo Escolar: 999999999999
Turno: Xxxxxxxxxxxxx
Turma: Xxxxxx

Escola:
Xxxxxxxxxxxxxxxx Xxxxxxxxxxxxxxxxxxxxxxxxxxxx

Município/UF:
Xxxxxxxxxxxxxx Xxxxxxxxxxxx Xxxxxxxxxx/XX

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INEP Ministério da Educação GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

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REFILE 5 mm

MANUFATURA

Cliente: CAPA 9º SERIE	Lar .(mm) 426	Alt .(") 265	RS: . . . - . . .	Filial	DE p/ a --- da(s)
[X] NOVO [ ] Rep.Alt.OF.: . . . . . - .			PF:	. . . .	Todas via(s)

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182 mm
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REFILE 3 mm
REFILE 5 mm

Ministério da Educação

GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

ProvaBrasil Avaliação do Rendimento Escolar

SAEB E PROVA BRASIL – 2011

FOLHA DE RESPOSTA – 9.º ANO (8.ª SÉRIE) DO ENSINO FUNDAMENTAL

NOME COMPLETO DO ALUNO

PARA USO EXCLUSIVO DO APLICADOR

- ← 1. Aluno ausente
- ← 2. Aluno presente e NÃO respondeu a prova
- ← 3. ANE
- ← 4. Aluno não previsto - utilizou prova reserva ou prova destinada a outro aluno

Recursos para ANE

- ← 1. Ledor
- ← 2. Lupa
- ← 3. Intérprete de libras
- ← 4. Auxílio preenchimento
- ← 5. Outro
- ← 6. Nenhum

Sr. Aplicador: Preencha os campos abaixo (Nome do aluno, Data de nascimento e Nome da mãe) **SOMENTE** para o caso de aluno não previsto que tenha utilizado prova reserva ou prova destinada a outro aluno.

Nome do aluno

Data de nascimento / /

Nome da mãe

MARQUE O NÚMERO DO CADERNO DE PROVA QUE VOCÊ RECEBEU.

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21)

BLOCO 1

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D

BLOCO 2

14	A	B	C	D
15	A	B	C	D
16	A	B	C	D
17	A	B	C	D
18	A	B	C	D
19	A	B	C	D
20	A	B	C	D
21	A	B	C	D
22	A	B	C	D
23	A	B	C	D
24	A	B	C	D
25	A	B	C	D
26	A	B	C	D

BLOCO 3

1	A	B	C	D
2	A	B	C	D
3	A	B	C	D
4	A	B	C	D
5	A	B	C	D
6	A	B	C	D
7	A	B	C	D
8	A	B	C	D
9	A	B	C	D
10	A	B	C	D
11	A	B	C	D
12	A	B	C	D
13	A	B	C	D

BLOCO 4

14	A	B	C	D
15	A	B	C	D
16	A	B	C	D
17	A	B	C	D
18	A	B	C	D
19	A	B	C	D
20	A	B	C	D
21	A	B	C	D
22	A	B	C	D
23	A	B	C	D
24	A	B	C	D
25	A	B	C	D
26	A	B	C	D

Nome do aluno: Xxxxxxxx Xxxxx xx Xxxxxxxxxx
Escola: Xxxxxxxxxxxxxxx Xxxxxxxxxxxxxxx xx Xxxxxxxxxxxxxxx
Município/UF: Xxxxxxxxxxxxxxxxxx/XX
ID Censo Escolar: 99999999999
Dependência administrativa: Xxxxxxxxxxxxxxx Xxxxxxxxxxxxxxx xx Xxxxxx
Turno: Xxxxxxxxxxx
Ano/série:
Turma: Xxxxx

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DESTAQUE AQUI

DESTAQUE AQUI

Ministério da Educação

GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

SAEB E PROVA BRASIL – 2011

QUESTIONÁRIO DO ALUNO – 9.º ANO (8.ª SÉRIE) DO ENSINO FUNDAMENTAL

Turma: Xxxxx
Turno: Xxxxxxxxxxx
Ano/série: 9º SÉRIE DO ENSINO MÉDIO
ID Censo Escolar: 99999999999
Dependência administrativa: Xxxxxxxxxxxxxxx Xxxxxxxxxxxxxxx xx Xxxxxx
Nome do aluno: Xxxxxxxx Xxxxx xx Xxxxxxxxxx
Escola: Xxxxxxxxxxxxxxx Xxxxxxxxxxxxxxx xx Xxxxxxxxxxxxxxx
Município/UF: Xxxxxxxxxxxxxxxxxx/XX

1. Sexo: (A) Masculino. (B) Feminino.

2. Como você se considera?
(A) Branco(a). (B) Pardo(a). (C) Preto(a). (D) Amarelo(a). (E) Indígena. (F) Não Sei.

3. Qual é o mês do seu aniversário?
(A) Janeiro. (B) Fevereiro. (C) Março. (D) Abril. (E) Maio. (F) Junho. (G) Julho. (H) Agosto. (I) Setembro. (J) Outubro. (K) Novembro. (L) Dezembro.

4. Em que ano você nasceu?
(A) 1999 ou depois. (B) 1998. (C) 1997. (D) 1996. (E) 1995. (F) 1994. (G) 1993. (H) 1992 ou antes.

5. Na sua casa tem televisão em cores?
(A) Sim, uma. (B) Sim, duas. (C) Sim, três ou mais. (D) Não tem.

6. Na sua casa tem rádio?
(A) Sim, um. (B) Sim, dois. (C) Sim, três ou mais. (D) Não tem.

7. Na sua casa tem videocassete ou DVD?
(A) Sim. (B) Não.

8. Na sua casa tem geladeira?
(A) Sim, uma. (B) Duas ou mais. (C) Não tem.

9. Na sua casa tem freezer junto a geladeira?
(A) Sim. (B) Não. (C) Não sei.

10. Na sua casa tem freezer separado da geladeira?
(A) Sim. (B) Não. (C) Não sei.

11. Na sua casa tem máquina de lavar roupa (não é tanquinho)?
(A) Sim. (B) Não.

12. Na sua casa tem carro?
(A) Sim, um. (B) Sim, dois. (C) Sim, três ou mais. (D) Não.

13. Na sua casa tem computador?
(A) Sim, com internet. (B) Sim, sem internet. (C) Não.

14. Dentro de sua casa tem banheiro?
(A) Sim, um. (B) Sim, dois. (C) Sim, três. (D) Sim, mais de três. (E) Não.

15. Na sua casa trabalha alguma empregada doméstica?
(A) Sim, uma diarista, uma ou duas vezes por semana.
(B) Sim, uma, todos os dias úteis.
(C) Sim, duas ou mais, todos os dias úteis.
(D) Não.

16. Na sua casa tem quartos para dormir?
(A) Sim, um. (B) Sim, dois. (C) Sim, três. (D) Sim, quatro ou mais. (E) Não.

17. Quantas pessoas moram com você?
(A) Moro sozinho(a).
(B) Moro com mais 1 pessoa.
(C) Moro com mais 2 pessoas.
(D) Moro com mais 3 pessoas.
(E) Moro com mais 4 ou 5 pessoas.
(F) Moro com mais 6 ou 7 pessoas.
(G) Moro com mais de 7 pessoas.

18. Você mora com sua mãe?
(A) Sim.
(B) Não. (passe para questão 22)
(C) Não, moro com outra mulher responsável por mim.

19. Até que série sua mãe ou a mulher responsável por você estudou?
(A) Nunca estudou.
(B) Não completou a 4.ª série (antigo primário).
(C) Completou a 4.ª série, mas não completou a 8.ª série (antigo ginásio).
(D) Completou a 8.ª série, mas não completou o Ensino Médio (antigo 2.º grau).
(E) Completou o Ensino Médio, mas não completou a Faculdade.
(F) Completou a Faculdade.
(G) Não sei.

20. Sua mãe ou a mulher responsável por você sabe ler e escrever?
(A) Sim. (B) Não. (C) Não sei.

21. Você vê sua mãe ou mulher responsável por você lendo?
(A) Sim. (B) Não.

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OP 189321-1 - VERSO DV PRETO PANTONE LARANJA

MANUFATURA

Cliente:	Lar (mm)	Alt (")			
CAPA 9º SERIE	426	265	RS: . . . - . . .	Filial	DE p/ a ___ da(s)
☒ NOVO ☐ Rep.Alt.OF.: . . . . . - .			PF:	. . . .	Todas via(s)

Ministério da Educação

GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

Sistema de Avaliação da Educação Básica - SAEB 2013

QUESTIONÁRIO DO ALUNO

9.º ANO (8.ª SÉRIE)
ENSINO FUNDAMENTAL
PROVA BRASIL E ANEB

Nome do aluno: Xxxxxxxx Xxxxx xx Xxxxxxxxxxx
Escola: Xxxxxxxxxxxxxxxx Xxxxxxxxxxxxxx xx Xxxxxxxxxxxx
Município/UF: Xxxxxxxxxxxxxxxxxxxxxxxx/XX
ID Censo Escolar: 99999999999
Turno: Xxxxxxxxxxxx
Turma: Xxxxx
Ano/série: x Xxxxxxxxxxxxxxxxxxxx

1. Qual é o seu sexo? (A) Masculino. (B) Feminino.

2. Como você se considera?

(A) Branco(a). (B) Pardo(a). (C) Preto(a). (D) Amarelo(a). (E) Indígena. (F) Não Sei.

3. Você poderia nos dizer qual é o mês de seu aniversário?

(A) Janeiro. (B) Fevereiro. (C) Março. (D) Abril (E) Maio. (F) Junho. (G) Julho. (H) Agosto. (I) Setembro. (J) Outubro. (K) Novembro. (L) Dezembro.

4. Em que ano você nasceu?

(A) 2001 ou depois. (B) 2000. (C) 1999. (D) 1998. (E) 1997. (F) 1996. (G) 1995 (H) 1994 ou antes.

5. Na sua casa tem televisão em cores?

(A) Não tem. (B) Sim, uma. (C) Sim, duas. (D) Sim, três. (E) Sim, quatro ou mais.

6. Na sua casa tem aparelho de rádio?

(A) Não tem. (B) Sim, um. (C) Sim, dois. (D) Sim, três. (E) Sim, quatro ou mais.

7. Na sua casa tem videocassete e/ou DVD?

(A) Não tem. (B) Sim, um. (C) Sim, dois. (D) Sim, três. (E) Sim, quatro ou mais.

8. Na sua casa tem geladeira?

(A) Não tem. (B) Sim, uma. (C) Sim, duas. (D) Sim, três. (E) Sim, quatro ou mais.

9. Na sua casa tem freezer (parte da geladeira duplex)?

(A) Não tem. (B) Sim, um. (C) Sim, dois. (D) Sim, três. (E) Sim, quatro ou mais.

10. Na sua casa tem freezer separado da geladeira?

(A) Não tem. (B) Sim, um. (C) Sim, dois. (D) Sim, três. (E) Sim, quatro ou mais.

11. Na sua casa tem máquina de lavar roupa (O tanquinho NÃO deve ser considerado)?

(A) Não tem. (B) Sim, uma. (C) Sim, duas. (D) Sim, três. (E) Sim, quatro ou mais.

12. Na sua casa tem carro?

(A) Não tem. (B) Sim, um. (C) Sim, dois. (D) Sim, três. (E) Sim, quatro ou mais.

13. Na sua casa tem computador?

(A) Não tem. (B) Sim, um. (C) Sim, dois. (D) Sim, três. (E) Sim, quatro ou mais.

14. Na sua casa tem banheiro?

(A) Não tem. (B) Sim, um. (C) Sim, dois. (D) Sim, três. (E) Sim, quatro ou mais.

15. Na sua casa tem quartos para dormir?

(A) Não tem. (B) Sim, um. (C) Sim, dois. (D) Sim, três. (E) Sim, quatro ou mais.

16. Incluindo você, quantas pessoas vivem atualmente em sua casa?

(A) Uma, pois moro sozinho(a).
(B) Duas.
(C) Três.
(D) Quatro.
(E) Cinco.
(F) Seis pessoas ou mais.

17. Em sua casa trabalha empregado(a) doméstico(a) pelo menos cinco dias por semana?

(A) Não.
(B) Sim, um(a) empregado(a).
(C) Sim, dois(duas) empregados(as).
(D) Sim, três empregados(as).
(E) Sim, quatro ou mais empregados(as).

18. Você mora com sua mãe?

(A) Sim.
(B) Não.
(C) Não, mas moro com outra mulher responsável por mim.

19. Até que série sua mãe, ou a mulher responsável por você, estudou?

(A) Nunca estudou.
(B) Não completou a 4.ª série/5.º ano.
(C) Completou a 4.ª série/5.º ano, mas não completou a 8.ª série/9.ºano.
(D) Completou a 8.ª série/9.º ano, mas não completou o Ensino Médio.
(E) Completou o Ensino Médio, mas não completou a Faculdade.
(F) Completou a Faculdade.
(G) Não sei.

20. Sua mãe, ou a mulher responsável por você, sabe ler e escrever?

(A) Sim. (B) Não.

21. Você vê sua mãe, ou mulher responsável por você, lendo?

(A) Sim. (B) Não.

22. Você mora com seu pai?

(A) Sim.
(B) Não.
(C) Não, mas moro com outro homem responsável por mim.

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Sistema de Avaliação da Educação Básica - SAEB 2013

PROVA BRASIL / ANEB

QUESTIONÁRIO DO ALUNO – 9.º ANO (8.ª SÉRIE) DO ENSINO FUNDAMENTAL

23. Até que série seu pai, ou o homem responsável por você, estudou?

(A) Nunca estudou.
(B) Não completou a 4.ª série/5.º ano.
(C) Completou a 4.ª série/5.º ano, mas não completou a 8.ª série/9.º ano.
(D) Completou a 8.ª série/9.º ano, mas não completou o Ensino Médio.
(E) Completou o Ensino Médio, mas não completou a Faculdade.
(F) Completou a Faculdade.
(G) Não sei.

24. Seu pai, ou homem responsável por você, sabe ler e escrever? (A) Sim. (B) Não.

25. Você vê o seu pai, ou homem responsável por você, lendo? (A) Sim. (B) Não.

26. Com qual frequência seus pais, ou responsáveis por você, vão à reunião de pais?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.

27. Seus pais ou responsáveis incentivam você a estudar? (A) Sim. (B) Não.

28. Seus pais ou responsáveis incentivam você a fazer o dever de casa e/ou os trabalhos da escola?

(A) Sim. (B) Não.

29. Seus pais ou responsáveis incentivam você a ler? (A) Sim. (B) Não.

30. Seus pais ou responsáveis incentivam você a ir a escola e/ou não faltar às aulas?

(A) Sim. (B) Não.

31. Seus pais ou responsáveis conversam com você sobre o que acontece na escola?

(A) Sim. (B) Não.

Com qual frequência você lê:	Sempre ou quase sempre	De vez em quando	Nunca ou quase nunca
32. Jornais.	A	B	C
33. Livros em geral.	A	B	C
34. Livros de literatura.	A	B	C
35. Revistas em geral.	A	B	C
36. Revistas em quadrinhos (gibis).	A	B	C
37. Revistas de comportamento, celebridades, esportes ou TV.	A	B	C
38. Notícias na *internet* (ex.: blog, notícia).	A	B	C

39. Com qual frequência você costuma ir à biblioteca?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.

40. Com qual frequência você costuma ir ao cinema?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.

41. Com qual frequência você costuma ir a algum tipo de espetáculo ou exposição (teatro, museu, dança, música)?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.

42. Com qual frequência você participa de festas na sua vizinhança ou comunidade?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.

43. Em dia de aula, quanto tempo você gasta assistindo à TV, navegando na *internet* ou jogando jogos eletrônicos?

(A) Menos de 1 hora.
(B) Entre 1 e 2 horas.
(C) Mais de 2 horas, até 3 horas.
(D) Mais de 3 horas.
(E) Não vejo TV, não navego na *internet* e não jogo jogos eletrônicos.

44. Em dias de aula, quanto tempo você gasta fazendo trabalhos domésticos (ex.: lavando a louça, limpando o quintal etc.)?

(A) Menos de 1 hora.
(B) Entre 1 e 2 horas.
(C) Mais de 2 horas, até 3 horas.
(D) Mais de 3 horas.
(E) Não faço trabalhos domésticos.

45. Atualmente você trabalha fora de casa (recebendo ou não salário)?

(A) Sim. (B) Não.

46. Quando você entrou na escola?

(A) Na creche (0 a 3 anos).
(B) Na pré-escola (4 a 5 anos).
(C) Na primeira série ou primeiro ano (6 a 7 anos).
(D) Depois da primeira série.

47. A partir da quinta série ou sexto ano, em que tipo de escola você estudou?

(A) Somente em escola pública.
(B) Somente em escola particular.
(C) Em escola pública e em escola particular.

48. Você já foi reprovado?

(A) Não. (B) Sim, uma vez. (C) Sim, duas vezes ou mais.

49. Você já abandonou a escola durante o período de aulas e ficou fora da escola o resto do ano?

(A) Não. (B) Sim, uma vez. (C) Sim, duas vezes ou mais.

50. Você gosta de estudar Língua Portuguesa? (A) Sim. (B) Não.

51. Você faz o dever de casa de Língua Portuguesa?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.
(D) O(A) professor(a) não passa dever de casa.

52. O(A) professor(a) corrige o dever de casa de Língua Portuguesa?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.
(D) O(A) professor(a) não passa dever de casa.

53. Você gosta de estudar Matemática? (A) Sim. (B) Não.

54. Você faz o dever de casa de Matemática?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.
(D) O(A) professor(a) não passa dever de casa.

55. O(A) professor(a) corrige o dever de casa de Matemática?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.
(D) O(A) professor(a) não passa dever de casa.

56. Você utiliza a biblioteca ou sala de leitura da sua escola?

(A) Sempre ou quase sempre.
(B) De vez em quando.
(C) Nunca ou quase nunca.
(D) A escola não possui biblioteca ou sala de leitura.

57. Quando você terminar o 9.º ano(8.ª série) você pretende:

(A) Somente continuar estudando.
(B) Somente trabalhar.
(C) Continuar estudando e trabalhar.
(D) Ainda não sei.

3124370471

1234567891011

Senhor(a) Professor(a),

Com o lançamento do Plano de Desenvolvimento da Educação (PDE), em 2007, as transferências voluntárias e assistência técnica do MEC aos municípios, estados e Distrito Federal estão vinculadas à adesão ao Compromisso Todos pela Educação e à elaboração do Plano de Ações Articuladas **(**PAR) — instrumentos que são fundamentais para a melhoria do **Indicador de Desenvolvimento da Educação Básica (IDEB)**.

O Ministério da Educação instituiu o IDEB, calculado com base em dois pilares: a) as informações sobre rendimento escolar do Censo Escolar da Educação Básica (aprovação, reprovação e abandono); e b) as informações sobre o desempenho dos estudantes resultantes do Sistema Nacional de Avaliação da Educação Básica (SAEB). Reinstituído por Portaria Ministerial, em 2005, o SAEB passou a ser composto por dois processos: a Avaliação Nacional da Educação Básica (ANEB) e a Avaliação Nacional do Rendimento Escolar (ANRESC) – também conhecida como Prova Brasil. Ambas têm como objetivo principal oferecer subsídios para formulação, reformulação e monitoramento de políticas públicas de educação no Brasil.

Nesse Sistema, busca-se identificar os níveis de qualidade da educação brasileira por meio da avaliação do desempenho dos alunos em momentos conclusivos de diversas etapas de seu percurso escolar, ao mesmo tempo em que se contextualiza, por meio de estratégias que incluem a aplicação de questionários, as condições em que o ensino acontece.

O presente questionário, parte integrante dos processos avaliativos, tem como objetivo coletar dados acerca da formação profissional, das práticas pedagógicas e do perfil socioeconômico e cultural dos professores das turmas em que a avaliação está sendo aplicada. Para cada aspecto avaliado, preencha, na **FOLHA DE RESPOSTAS,** o campo correspondente à resposta que você considera mais adequada. Utilize caneta esferográfica de tinta azul ou preta. Não se esqueça de informar o nome da(s) turma(s) em que você leciona, nesta escola, na série avaliada.

A sua colaboração, ao preencher este questionário, será de grande valia para o êxito da avaliação e para o aprimoramento da educação brasileira. Esclarecemos que não existe identificação do respondente, interessando ao MEC apenas as informações prestadas.

1. SEXO

(A) Masculino.
(B) Feminino.

2. IDADE

(A) Até 24 anos.
(B) De 25 a 29 anos.
(C) De 30 a 39 anos.
(D) De 40 a 49 anos.
(E) De 50 a 54 anos.
(F) 55 anos ou mais.

3. COMO VOCÊ SE CONSIDERA?

(A) Branco(a).
(B) Pardo(a).
(C) Preto(a).
(D) Amarelo(a).
(E) Indígena.

4. DAS OPÇÕES ABAIXO, ASSINALE A QUE MELHOR DESCREVE O SEU NÍVEL MÁXIMO DE ESCOLARIDADE ATÉ A GRADUAÇÃO.

(A) Menos que o Ensino Médio (antigo 2.º grau).
(B) Ensino Médio – Magistério (antigo 2.º grau).
(C) Ensino Médio – Outros (antigo 2.º grau).
(D) Ensino Superior – Pedagogia.
(E) Ensino Superior – Licenciatura em Matemática.
(F) Ensino Superior – Licenciatura em Letras.
(G) Ensino Superior – Escola Normal Superior.
(H) Ensino Superior – Outros.

5. HÁ QUANTOS ANOS VOCÊ OBTEVE O NÍVEL DE ESCOLARIDADE ASSINALADO ANTERIORMENTE?

(A) Há 2 anos ou menos.
(B) De 3 a 7 anos.
(C) De 8 a 14 anos.
(D) De 15 a 20 anos.
(E) Há mais de 20 anos.

6. EM QUE TIPO DE INSTITUIÇÃO VOCÊ FEZ O CURSO SUPERIOR? SE VOCÊ ESTUDOU EM MAIS DE UMA INSTITUIÇÃO, ASSINALE AQUELA EM QUE OBTEVE O SEU TÍTULO PROFISSIONAL.

(A) Pública federal.
(B) Pública estadual.
(C) Pública municipal.
(D) Privada.
(E) Não se aplica.

7. QUAL ERA A NATUREZA DESSA INSTITUIÇÃO?

(A) Faculdade isolada.
(B) Centro Universitário.
(C) Universidade.
(D) Não se aplica.

8. DE QUE FORMA VOCÊ REALIZOU O CURSO SUPERIOR?

(A) Presencial.
(B) Semi-presencial.
(C) A distância.
(D) Não se aplica.

9. INDIQUE A MODALIDADE DE CURSOS DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

(A) Atualização (mínimo de 180 horas).
(B) Especialização (mínimo de 360 horas).
(C) Mestrado.
(D) Doutorado.
(E) Não fiz ou ainda não completei curso de pós-graduação.

10. INDIQUE QUAL A ÁREA TEMÁTICA DO CURSO DE PÓS-GRADUAÇAO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

(A) Educação, enfatizando alfabetização.
(B) Educação, enfatizando educação matemática.
(C) Educação – outras ênfases.
(D) Outras áreas que não a Educação.
(E) Não se aplica.

11. VOCÊ PARTICIPOU DE ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO ETC) NOS ÚLTIMOS DOIS ANOS?

(A) Sim.
(B) Não. **(Passe para a questão 14).**

12. QUAL A CARGA HORÁRIA DA ATIVIDADE QUE VOCÊ CONSIDERA MAIS RELEVANTE DA QUAL PARTICIPOU?

(A) Menos de 20 horas.
(B) De 21 a 40 horas.
(C) De 41 a 80 horas.
(D) Mais de 80 horas

13. VOCÊ UTILIZA OS CONHECIMENTOS ADQUIRIDOS NAS ATIVIDADES DE FORMAÇÃO CONTINUADA PARA A MELHORIA DE SUA PRÁTICA EM SALA DE AULA?

(A) Quase sempre.
(B) Eventualmente.
(C) Quase nunca.
(D) Não contribuíram em nada.

14. NESTA ESCOLA, QUAL O SEU SALÁRIO BRUTO (COM ADICIONAIS, SE HOUVER) COMO PROFESSOR(A)?

(A) Até R$ 380,00.
(B) De R$ 381,00 a R$ 500,00.
(C) De R$ 501,00 a R$ 700,00.
(D) De R$ 701,00 a R$ 900,00.
(E) De R$ 901,00 a R$ 1.100,00.
(F) De R$ 1.101,00 a R$ 1.300,00.
(G) De R$ 1.301,00 a R$ 1.500,00.
(H) De R$ 1.501,00 a R$ 1.700,00.
(I) De R$ 1.701,00 a R$ 1.900,00.
(J) De R$ 1.901,00 a R$ 2.300,00.
(L) De R$ 2.301,00 a R$ 2.700,00.
(M) De R$ 2.701,00 a R$ 3.100,00.
(N) Mais de R$ 3.100,00.

15. ALÉM DA ATIVIDADE COMO DOCENTE NESTA ESCOLA, VOCÊ EXERCE OUTRA ATIVIDADE QUE CONTRIBUI PARA SUA RENDA PESSOAL?

(A) Sim, na área de Educação.
(B) Sim, fora da área de Educação.
(C) Não. **(Passe para a questão 17).**

16. QUAL O SEU SALÁRIO BRUTO (COM ADICIONAIS, SE HOUVER) COMO PROFESSOR(A)?

(Soma de tudo o que você ganha como professor(a))

(A) Até R$ 380,00.
(B) De R$ 381,00 a R$ 500,00.
(C) De R$ 501,00 a R$ 700,00.
(D) De R$ 701,00 a R$ 900,00.
(E) De R$ 901,00 a R$ 1.100,00.
(F) De R$ 1.101,00 a R$ 1.300,00.
(G) De R$ 1.301,00 a R$ 1.500,00.
(H) De R$ 1.501,00 a R$ 1.700,00.
(I) De R$ 1.701,00 a R$ 1.900,00.
(J) De R$ 1.901,00 a R$ 2.300,00.
(L) De R$ 2.301,00 a R$ 2.700,00.
(M) De R$ 2.701,00 a R$ 3.100,00.
(N) Mais de R$ 3.100,00.

17. HÁ QUANTOS ANOS VOCÊ ESTÁ LECIONANDO?

(A) Há menos de 1 ano.
(B) De 1 a 2 anos.
(C) De 3 a 5 anos.
(D) De 6 a 9 anos.
(E) De 10 a 15 anos.
(F) De 15 a 20 anos.
(G) Há mais de 20 anos.

18. HÁ QUANTOS ANOS VOCÊ TRABALHA NESTA ESCOLA?

(A) Há menos de 1 ano.
(B) De 1 a 2 anos.
(C) De 3 a 5 anos.
(D) De 6 a 9 anos.
(E) De 10 a 15 anos.
(F) De 15 a 20 anos.
(G) Há mais de 20 anos.

19. CONSIDERANDO TODA A SUA EXPERIÊNCIA PROFISSIONAL, HÁ QUANTOS ANOS VOCÊ MINISTRA AULAS PARA ALUNOS DA(S) SÉRIE(S) AVALIADA(S)?

(A) Até 2 anos.
(B) De 3 a 4 anos.
(C) De 5 a 6 anos.
(D) De 7 a 8 anos.
(E) Mais de 8 anos.

20. NESTA ESCOLA, QUAL A SUA CARGA HORÁRIA SEMANAL? (Considere a carga horária contratual: horas-aula mais horas para atividades, se houver.)

(A) Menos de 16 horas-aula.
(B) De 16 a 19 horas-aula.
(C) 20 horas-aula.
(D) De 21 a 23 horas-aula.
(E) De 24 a 25 horas-aula.
(F) De 26 a 29 horas-aula.
(G) 30 horas-aula.
(H) De 31 a 35 horas-aula.
(I) De 36 a 39 horas-aula.
(J) 40 horas-aula.
(L) Mais de 40 horas-aula.

21. EM QUANTAS ESCOLAS VOCÊ TRABALHA?

(A) Apenas nesta escola. **(Passe para a questão 23).**
(B) Em 2 escolas.
(C) Em 3 escolas.
(D) Em 4 ou mais escolas.

22. AO TODO, QUANTAS HORAS-AULA VOCÊ MINISTRA POR SEMANA? (Não considere aulas particulares)

(A) Menos de 16 horas.
(B) De 16 a 19 horas.
(C) 20 horas.
(D) De 21 a 23 horas.
(E) De 24 a 25 horas.
(F) De 26 a 29 horas.
(G) 30 horas.
(H) De 31 a 35 horas.
(I) De 36 a 39 horas.
(J) 40 horas.
(L) Mais de 40 horas.

23. QUAL É A SUA SITUAÇÃO TRABALHISTA NESTA ESCOLA? (Marque apenas UMA opção)

(A) Estatutário.
(B) CLT.
(C) Prestador de serviço por contrato temporário.
(D) Prestador de serviço sem contrato.
(E) Outras.

AS ATIVIDADES (DE LÍNGUA PORTUGUESA) QUE VOCÊ REALIZA COM OS ALUNOS DA(S) SÉRIE(S) AVALIADA(S) TÊM POSSIBILITADO AOS ALUNOS (Marque apenas UMA opção em cada linha.)

		Semanalmente	Algumas vezes por mês	Uma vez por mês	Uma vez por bimestre	Nunca
24.	copiar textos extensos do livro didático ou do quadro de giz (quadro-negro ou lousa).	(A)	(B)	(C)	(D)	(E)
25.	conversar sobre textos de jornais e revistas.	(A)	(B)	(C)	(D)	(E)
26.	fazer exercícios sobre gramática relacionados com textos de jornais ou revistas.	(A)	(B)	(C)	(D)	(E)
27.	automatizar o uso de regras gramaticais.	(A)	(B)	(C)	(D)	(E)
28.	ler, discutir com colegas e escrever textos relacionados com o desenvolvimento de projeto temático.	(A)	(B)	(C)	(D)	(E)
29.	ler contos, crônicas, poesias ou romances.	(A)	(B)	(C)	(D)	(E)
30.	conversar sobre contos, crônicas, poesias ou romances.	(A)	(B)	(C)	(D)	(E)
31.	usar contos, crônicas, poesias ou romances para exercitar aspectos da gramática.	(A)	(B)	(C)	(D)	(E)
32.	fixar os nomes de conceitos gramaticais e lingüísticos.	(A)	(B)	(C)	(D)	(E)
33.	discutir um texto, explorando as diferenças entre fatos e opiniões.	(A)	(B)	(C)	(D)	(E)

AS ATIVIDADES (DE MATEMÁTICA) QUE VOCÊ REALIZA COM OS ALUNOS DA(S) SÉRIE(S) AVALIADA(S) TÊM POSSIBILITADO AOS ALUNOS (Marque apenas UMA opção em cada linha.)

		Semanalmente	Algumas vezes por mês	Uma vez por mês	Uma vez por bimestre	Nunca
34.	fazer exercícios para automatizar procedimentos.	(A)	(B)	(C)	(D)	(E)
35.	lidar com problemas que exigem raciocínios diferentes e mais complexos que a maioria dos exemplos usuais.	(A)	(B)	(C)	(D)	(E)
36.	falar sobre suas soluções, discutindo os caminhos usados para encontrá-las.	(A)	(B)	(C)	(D)	(E)
37.	gravar as regras que permitem obter as respostas certas dos cálculos e problemas.	(A)	(B)	(C)	(D)	(E)
38.	lidar com temas que aparecem em jornais e/ou revistas, discutindo a relação dos temas com a Matemática.	(A)	(B)	(C)	(D)	(E)
39.	interpretar resultados numéricos obtidos para dar uma resposta adequada ao problema.	(A)	(B)	(C)	(D)	(E)
40.	lidar com situações que lhes sejam familiares e que apresentem temas do interesse dos alunos.	(A)	(B)	(C)	(D)	(E)
41.	experimentar diferentes modos de resolver um problema ou de efetuar um cálculo.	(A)	(B)	(C)	(D)	(E)
42.	aprimorar a precisão e a velocidade de execução de cálculos.	(A)	(B)	(C)	(D)	(E)
43.	experimentar diferentes ações (coletar informações recortar, analisar, explorar, discutir, manipular etc.) para resolver problemas.	(A)	(B)	(C)	(D)	(E)

INDIQUE SE VOCÊ UTILIZA OU NÃO NESTA ESCOLA: (Marque apenas UMA opção em cada linha.)

	Sim, utilizo.	Não utilizo porque não acho necessário.	Não utilizo porque a escola não tem.
44. Computadores	(A)	(B)	(C)
45. Internet	(A)	(B)	(C)
46. Fitas de vídeo ou DVD	(A)	(B)	(C)
47. Jornais e revistas informativas	(A)	(B)	(C)
48. Livros de consulta para os professores	(A)	(B)	(C)
49. Livros de leitura	(A)	(B)	(C)
50. Livros didáticos	(A)	(B)	(C)
51. Retroprojetor	(A)	(B)	(C)
52. Máquina copiadora	(A)	(B)	(C)

53. COMO FOI DESENVOLVIDO O PROJETO PEDAGÓGICO DESTA ESCOLA NESTE ANO?

(A) Pela aplicação de modelo encaminhado pela Secretaria de Educação.

(B) Foi elaborado pelo(a) diretor(a).

(C) O(A) diretor(a) elaborou uma proposta de projeto, apresentou-a aos professores para sugestões e depois chegou à versão final.

(D) Os professores elaboraram uma proposta e, com base nela, o diretor chegou à versão final.

(E) Foi elaborado pelo(a) diretor(a) e por uma equipe de professores.

(F) De outra maneira.

(G) Não sei como foi desenvolvido.

(H) Não existe Projeto Pedagógico.

54. CONSELHO DE CLASSE É UM ÓRGÃO FORMADO POR TODOS OS PROFESSORES QUE LECIONAM EM CADA TURMA/SÉRIE. NESTE ANO, QUANTAS VEZES SE REUNIRAM OS CONSELHOS DE CLASSE DESTA ESCOLA?

(A) Uma vez.
(B) Duas vezes.
(C) Três vezes ou mais.
(D) Nenhuma vez.
(E) Não existe Conselho de Classe.

55. QUANTO DOS CONTEÚDOS PREVISTOS VOCÊ CONSEGUIU DESENVOLVER COM OS ALUNOS DA(S) TURMA(S) AVALIADA(S), NESTE ANO?

(A) Menos de 40%.
(B) Entre 40% e 60%.
(C) Entre 60% e 80%.
(D) Mais de 80%.

QUANTOS DOS ALUNOS DA(S) SÉRIE(S) AVALIADA(S) VOCÊ ACHA QUE (Marque apenas UMA opção em cada linha.)

	Quase todos os alunos.	Um pouco mais da metade dos alunos.	Um pouco menos da metade dos alunos.	Poucos alunos.	Não sei.
56. concluirão o Ensino Fundamental (8.ª série)?	(A)	(B)	(C)	(D)	(E)
57. concluirão o Ensino Médio?	(A)	(B)	(C)	(D)	(E)
58. entrarão para a Universidade?	(A)	(B)	(C)	(D)	(E)

ALGUMAS AFIRMAÇÕES SÃO USADAS PARA EXPLICAR AS DIFICULDADES DE APRENDIZAGEM DOS ALUNOS. ASSINALE SUA POSIÇÃO, CONSIDERANDO A SITUAÇÃO DOS ALUNOS DA(S) SÉRIE(S) AVALIADA(S). (Marque apenas UMA opção em cada linha.)

		Concordo	Discordo
59.	São localizadas na escola devido à carência de infra-estrutura física e/ou pedagógica.	(A)	(B)
60.	Estão relacionadas aos conteúdos curriculares, que são inadequados às necessidades dos alunos.	(A)	(B)
61.	São decorrentes do ambiente de insegurança física da escola.	(A)	(B)
62.	Encontram-se na escola, que oferece poucas oportunidades de desenvolvimento das capacidades intelectuais do aluno.	(A)	(B)
63.	Estão relacionadas ao não-cumprimento do conteúdo curricular.	(A)	(B)
64.	Relacionam-se à sobrecarga de trabalho do(as) professores(as), dificultando o planejamento e o preparo das aulas.	(A)	(B)
65.	São decorrentes da indisciplina dos alunos em sala de aula.	(A)	(B)
66.	Ocorrem devido ao baixo salário dos professores, que gera insatisfação e desestímulo para a atividade docente.	(A)	(B)
67.	São decorrentes do meio em que o aluno vive.	(A)	(B)
68.	São decorrentes do nível cultural dos pais dos alunos.	(A)	(B)
69.	Estão relacionadas à falta de assistência e acompanhamento da família nos deveres de casa e pesquisas dos alunos.	(A)	(B)
70.	Ocorrem devido à falta de aptidão e habilidades do aluno.	(A)	(B)
71.	Ocorrem devido ao desinteresse e falta de esforço do aluno.	(A)	(B)
72.	Estão vinculadas à baixa auto-estima dos alunos.	(A)	(B)

OS ITENS DE 73 A 87 APRESENTAM ALGUMAS AFIRMAÇÕES. INDIQUE SEU GRAU DE CONCORDÂNCIA/DISCORDÂNCIA COM CADA UMA DELAS. (Marque apenas UMA das duas alternativas.)

		Concordo totalmente	Concordo	Neutro	Discordo	Discordo totalmente
73.	O(A) diretor(a) me anima e me motiva para o trabalho.	(A)	(B)	(C)	(D)	(E)
74.	Tenho plena confiança no(a) diretor(a) como profissional.	(A)	(B)	(C)	(D)	(E)
75.	O(a) diretor(a) consegue que os professores se comprometam com a escola.	(A)	(B)	(C)	(D)	(E)
76.	O(a) diretor(a) estimula as atividades inovadoras.	(A)	(B)	(C)	(D)	(E)
77.	O(a) diretor(a) dá atenção especial a aspectos relacionados com a aprendizagem dos alunos.	(A)	(B)	(C)	(D)	(E)
78.	O(a) diretor(a) dá atenção especial aos aspectos relacionados com as normas administrativas.	(A)	(B)	(C)	(D)	(E)
79.	O(a) diretor(a) dá atenção especial aos aspectos relacionados com a manutenção da escola.	(A)	(B)	(C)	(D)	(E)
80.	Sinto-me respeitado(a) pelo(a) diretor(a).	(A)	(B)	(C)	(D)	(E)
81.	Respeito o(a) diretor(a).	(A)	(B)	(C)	(D)	(E)
82.	Participo das decisões relacionadas com o meu trabalho.	(A)	(B)	(C)	(D)	(E)
83.	A equipe de professores leva em consideração minhas idéias.	(A)	(B)	(C)	(D)	(E)
84.	Eu levo em consideração as idéias de outros colegas.	(A)	(B)	(C)	(D)	(E)
85.	O ensino que a escola oferece aos alunos é muito influenciado pela troca de idéias entre os professores.	(A)	(B)	(C)	(D)	(E)
86.	Os professores desta escola procuram coordenar o conteúdo das disciplinas entre as diferentes séries.	(A)	(B)	(C)	(D)	(E)
87.	O diretor, professores e demais membros da equipe da escola colaboram para fazer esta escola funcionar bem.	(A)	(B)	(C)	(D)	(E)

AS PERGUNTAS DE 88 A 95 APRESENTAM ALGUNS PROBLEMAS QUE PODEM OCORRER NAS ESCOLAS. RESPONDA SE CADA UM DELES OCORREU OU NÃO NESTE ANO. CASO TENHA OCORRIDO, ASSINALE SE FOI OU NÃO UM PROBLEMA GRAVE, DIFICULTANDO O FUNCIONAMENTO DA ESCOLA. (Marque apenas UMA opção em cada linha.)

Ocorreu na Escola	Não	Sim, mas não foi um problema grave.	Sim, e foi um problema grave
88. insuficiência de recursos financeiros?	(A)	(B)	(C)
89. inexistência de professores para algumas disciplinas ou séries?	(A)	(B)	(C)
90. carência de pessoal administrativo?	(A)	(B)	(C)
91. carência de pessoal de apoio pedagógico (coordenador, supervisor, orientador educacional)?	(A)	(B)	(C)
92. falta de recursos pedagógicos?	(A)	(B)	(C)
93. alto índice de faltas por parte de professores?	(A)	(B)	(C)
94. alto índice de faltas por parte de alunos?	(A)	(B)	(C)
95. problemas disciplinares causados pelos alunos?	(A)	(B)	(C)

VIOLÊNCIA NAS ESCOLAS

SOBRE OS FATOS LISTADOS ABAIXO, DIGA SE ELES ACONTECERAM OU NÃO ESTE ANO NESTA ESCOLA.

	QUEM FOI O AGRESSOR?					
	Aluno (1)		Professor (2)		Funcionário (3)	
	Sim	Não	Sim	Não	Sim	Não
96. Agressão verbal a professores	(A)	(B)	(A)	(B)	(A)	(B)
97. Agressão física a professores	(A)	(B)	(A)	(B)	(A)	(B)
98. Agressão verbal a alunos	(A)	(B)	(A)	(B)	(A)	(B)
99. Agressão física a alunos	(A)	(B)	(A)	(B)	(A)	(B)
100.Agressão verbal a funcionários	(A)	(B)	(A)	(B)	(A)	(B)
101.Agressão física a funcionários	(A)	(B)	(A)	(B)	(A)	(B)

SOBRE OS FATOS LISTADOS ABAIXO, DIGA SE ELES ACONTECERAM OU NÃO ESTE ANO, ENQUANTO VOCÊ MINISTRAVA AULAS, NA(S) SÉRIE(S) AVALIADA(S) NESTA ESCOLA.

	Sim	Não
102. Você foi vítima de atentado à vida?	(A)	(B)
103. Você foi ameaçado por algum aluno?	(A)	(B)
104. Você foi agredido verbalmente por algum aluno?	(A)	(B)
105. Você foi agredido fisicamente por algum aluno?	(A)	(B)
106. Você foi vítima de furto?	(A)	(B)
107. Você foi vítima de roubo (com uso de violência)?	(A)	(B)
108. Alunos freqüentaram as suas aulas sob efeito de bebida alcoólica?	(A)	(B)
109. Alunos freqüentaram as suas aulas sob efeito de drogas ilícitas?	(A)	(B)
110. Alunos freqüentaram as suas aulas portando arma branca (facas, canivetes etc.)?	(A)	(B)
111. Alunos freqüentaram as suas aulas portando arma de fogo?	(A)	(B)

112. VOCÊ CONHECE OS RESULTADOS DO SISTEMA NACIONAL DE AVALIAÇÃO DA EDUCAÇÃO BÁSICA (SAEB)?

(A) Sim.
(B) Não.

113. A SUA ESCOLA PARTICIPOU DA PROVA BRASIL 2005?

(A) Sim.
(B) Não.

114. OS ALUNOS DA(S) TURMA(S) EM QUE VOCÊ LECIONA TÊM LIVROS DIDÁTICOS?

(A) Sim, todos têm.
(B) Sim, a maioria tem.
(C) Sim, metade da turma tem.
(D) Sim, menos da metade da turma tem.
(E) Não, esta turma não recebeu o livro didático.

115. OS ALUNOS DA(S) TURMA(S) EM QUE VOCÊ LECIONA RECEBERAM O LIVRO DIDÁTICO NO INÍCIO DO ANO LETIVO?

(A) Sim.
(B) Não.

116. NA ESCOLHA DO LIVRO DIDÁTICO UTILIZADO NA(S) TURMA(S) EM QUE VOCÊ LECIONA, FOI CONSULTADO O "GUIA DE LIVROS DIDÁTICOS" DA SEF/MEC?

(A) Sim.
(B) Não.

117. PARA A DISCIPLINA QUE VOCÊ MINISTRA, COMO FOI ESCOLHIDO O LIVRO DIDÁTICO UTILIZADO NA(S) TURMA(S) AVALIADA(S)?

(Escolha apenas UMA alternativa de resposta)

(A) Escolhi junto com outros professores.
(B) O coordenador pedagógico, o orientador educacional e o diretor escolheram depois de consultar a equipe de professores da disciplina.
(C) O coordenador pedagógico e/ou orientador educacional escolheu sozinho.
(D) O diretor escolheu sozinho.
(E) O livro foi escolhido por órgãos de gerência externa à escola.
(F) Não sei como este livro foi escolhido.
(G) Não utilizo livro didático nestas turmas.

118. O LIVRO DIDÁTICO ESCOLHIDO FOI O RECEBIDO?

(A) Sim.
(B) Não.

119. COMO VOCÊ CONSIDERA O(S) LIVRO(S) DIDÁTICO(S) UTILIZADO(S) POR VOCÊ NA(S) DISCIPLINA(S) QUE VOCÊ MINISTRA NA(S) TURMA(S) AVALIADA(S)?

(A) Ótimo.
(B) Bom.
(C) Razoável.
(D) Ruim.

Senhor(a) Professor(a),

Com o lançamento do Plano de Desenvolvimento da Educação (PDE), em 2007, as transferências voluntárias e assistência técnica do MEC aos municípios, estados e Distrito Federal estão vinculadas à adesão ao Compromisso Todos pela Educação e à elaboração do Plano de Ações Articuladas **(**PAR) — instrumentos que são fundamentais para a melhoria do **Indicador de Desenvolvimento da Educação Básica (IDEB)**.

O Ministério da Educação instituiu o IDEB, calculado com base em dois pilares: a) os indicadores de aprovação do Censo Escolar da Educação Básica; e b) as informações sobre o desempenho dos estudantes resultantes do Sistema Nacional de Avaliação da Educação Básica (SAEB). Reinstituído por Portaria Ministerial, em 2005, o SAEB passou a ser composto por dois processos: a Avaliação Nacional da Educação Básica (ANEB) e a Avaliação Nacional do Rendimento Escolar (ANRESC) – conhecida como Prova Brasil. Ambas têm como objetivo principal oferecer subsídios para a formulação, a reformulação e o monitoramento de políticas públicas de educação no Brasil.

Nesse Sistema, busca-se identificar os níveis de qualidade da educação brasileira por meio da avaliação do desempenho dos alunos em momentos conclusivos de diversas etapas de seu percurso escolar. Ao mesmo tempo, as condições em que o ensino acontece são contextualizadas pela coleta de dados socioeconômicos de alunos, professores, diretores e escolas.

O presente questionário tem como objetivo coletar dados acerca da formação profissional, das práticas pedagógicas e do perfil socioeconômico e cultural dos professores das turmas em que a avaliação está sendo aplicada. Para cada aspecto avaliado, preencha, na **FOLHA DE RESPOSTAS,** o campo correspondente à resposta que você considera mais adequada. Utilize caneta esferográfica de tinta azul ou preta.

Caso seja professor de mais de uma turma da série avaliada nesta escola, lembre-se de informar seu CPF.

A sua colaboração ao preencher este questionário será de grande valia para o êxito da avaliação e para o aprimoramento da educação brasileira.

1. SEXO

(A) masculino. (B) feminino.

2. IDADE

(A) Até 24 anos.
(B) De 25 a 29 anos.
(C) De 30 a 39 anos.
(D) De 40 a 49 anos.
(E) De 50 a 54 anos.
(F) 55 anos ou mais.

3. COMO VOCÊ SE CONSIDERA?

(A) Branco(a).
(B) Pardo(a).
(C) Preto(a).
(D) Amarelo(a).
(E) Indígena.

4. QUAL O SEU NÍVEL DE ESCOLARIDADE (ATÉ A GRADUAÇÃO)?

(A) Menos que o Ensino Médio (antigo 2.º grau).
(B) Ensino Médio – Magistério (antigo 2.º grau).
(C) Ensino Médio – Outros (antigo 2.º grau).
(D) Ensino Superior – Pedagogia.
(E) Ensino Superior – Licenciatura em Matemática.
(F) Ensino Superior – Licenciatura em Letras.
(G) Ensino Superior – Escola Normal Superior.
(H) Ensino Superior – Outros.

5. HÁ QUANTOS ANOS VOCÊ OBTEVE O NÍVEL DE ESCOLARIDADE ASSINALADO ANTERIORMENTE?

(A) Há 2 anos ou menos.
(B) De 3 a 7 anos.
(C) De 8 a 14 anos.
(D) De 15 a 20 anos.
(E) Há mais de 20 anos.

6. EM QUE TIPO DE INSTITUIÇÃO VOCÊ FEZ O CURSO SUPERIOR? SE VOCÊ ESTUDOU EM MAIS DE UMA INSTITUIÇÃO, ASSINALE AQUELA EM QUE OBTEVE O SEU TÍTULO PROFISSIONAL.

(A) Pública federal.
(B) Pública estadual.
(C) Pública municipal.
(D) Privada.
(E) Não se aplica.

7. QUAL ERA A NATUREZA DESSA INSTITUIÇÃO?

(A) Faculdade isolada.
(B) Centro Universitário.
(C) Universidade.
(D) Não se aplica.

8. DE QUE FORMA VOCÊ REALIZOU O CURSO SUPERIOR?

(A) Presencial.
(B) Semi-presencial.
(C) À distância.
(D) Não se aplica.

9. INDIQUE A MODALIDADE DE CURSOS DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

(A) Atualização (mínimo de 180 horas).
(B) Especialização (mínimo de 360 horas).
(C) Mestrado.
(D) Doutorado.
(E) Não fiz ou ainda não completei curso de pós-graduação. **(vá para a questão 11)**

10. INDIQUE QUAL A ÁREA TEMÁTICA DO CURSO DE PÓS-GRADUAÇAO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

(A) Educação, enfatizando alfabetização.
(B) Educação, enfatizando linguística e/ou letramento.
(C) Educação – outras ênfases.
(D) Outras áreas que não seja a Educação.

11. VOCÊ PARTICIPOU DE ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO ETC) NOS ÚLTIMOS DOIS ANOS?

(A) Sim.
(B) Não. **(Passe para a questão 14).**

12. QUAL A CARGA HORÁRIA DA ATIVIDADE QUE VOCÊ CONSIDEROU MAIS RELEVANTE?

(A) Menos de 20 horas.
(B) De 21 a 40 horas.
(C) De 41 a 80 horas.
(D) Mais de 80 horas.

13. VOCÊ UTILIZA OS CONHECIMENTOS ADQUIRIDOS NAS ATIVIDADES DE FORMAÇÃO CONTINUADA NA SUA PRÁTICA EM SALA DE AULA?

(A) Quase sempre.
(B) Eventualmente.
(C) Quase nunca.

14. NESTA ESCOLA, QUAL O SEU SALÁRIO BRUTO? (COM ADICIONAIS, SE HOUVER)

(A) Até R$ 465,00.
(B) De R$ 466,00 a R$ 698,00.
(C) De R$ 699,00 a R$ 930,00.
(D) De R$ 931,00 a R$ 1.163,00.
(E) De R$ 1.164,00 a R$ 1.395,00.
(F) De R$ 1.396,00 a R$ 1.628,00.
(G) De R$ 1.629,00 a R$ 1.860,00.
(H) De R$ 1.861,00 a R$ 2.325,00.
(I) De R$ 2.326,00 a R$ 3.255,00.
(J) De R$ 3.256,00 a R$ 4.650,00.
(K) Mais de R$ 4.650,00.

15. ALÉM DA ATIVIDADE COMO DOCENTE NESTA ESCOLA, VOCÊ EXERCE OUTRA ATIVIDADE QUE CONTRIBUI PARA SUA RENDA PESSOAL?

(A) Sim, na área de Educação.
(B) Sim, fora da área de Educação.
(C) Não. **(Passe para a questão 17).**

16. QUAL O SEU SALÁRIO BRUTO (COM ADICIONAIS, SE HOUVER) COMO PROFESSOR(A)?

(Soma de tudo o que você ganha como professor(a))

(A) Até R$ 465,00.
(B) De R$ 466,00 a R$ 698,00.
(C) De R$ 699,00 a R$ 930,00.
(D) De R$ 931,00 a R$ 1.163,00.
(E) De R$ 1.164,00 a R$ 1.395,00.
(F) De R$ 1.396,00 a R$ 1.628,00.
(G) De R$ 1.629,00 a R$ 1.860,00.
(H) De R$ 1.861,00 a R$ 2.325,00.
(I) De R$ 2.326,00 a R$ 3.255,00.
(J) De R$ 3.256,00 a R$ 4.650,00.
(K) Mais de R$ 4.650,00.

17. HÁ QUANTOS ANOS VOCÊ ESTÁ LECIONANDO?

(A) Há menos de 1 ano.
(B) De 1 a 2 anos.
(C) De 3 a 5 anos.
(D) De 6 a 9 anos.
(E) De 10 a 15 anos.
(F) De 15 a 20 anos.
(G) Há mais de 20 anos.

18. HÁ QUANTOS ANOS VOCÊ TRABALHA NESTA ESCOLA?

(A) Há menos de 1 ano.
(B) De 1 a 2 anos.
(C) De 3 a 5 anos.
(D) De 6 a 9 anos.
(E) De 10 a 15 anos.
(F) De 15 a 20 anos.
(G) Há mais de 20 anos.

19. CONSIDERANDO TODA A SUA EXPERIÊNCIA PROFISSIONAL, HÁ QUANTOS ANOS VOCÊ MINISTRA AULAS PARA ALUNOS DA(S) SÉRIE(S) AVALIADA(S)?

(A) Até 2 anos.
(B) De 3 a 4 anos.
(C) De 5 a 6 anos.
(D) De 7 a 8 anos.
(E) Mais de 8 anos.

20. NESTA ESCOLA, QUAL A SUA CARGA HORÁRIA SEMANAL? (Considere a carga horária contratual: horas-aula mais horas para coordenação, se houver.)

(A) Até 19 horas-aula.
(B) 20 horas-aula.
(C) De 21 a 24 horas-aula.
(D) 25 horas-aula.
(E) De 26 a 29 horas-aula.
(F) 30 horas-aula.
(G) De 31 a 39 horas-aula.
(H) 40 horas-aula.
(I) Mais de 40 horas-aula.

21. EM QUANTAS ESCOLAS VOCÊ TRABALHA?

(A) Apenas nesta escola. **(Passe para a questão 23).**
(B) Em 2 escolas.
(C) Em 3 escolas.
(D) Em 4 ou mais escolas.

22. AO TODO, QUANTAS HORAS-AULA VOCÊ MINISTRA POR SEMANA? (Não considere aulas particulares individualizadas)

(A) Até 19 horas-aula.
(B) 20 horas-aula.
(C) De 21 a 24 horas-aula.
(D) 25 horas-aula.
(E) De 26 a 29 horas-aula.
(F) 30 horas-aula.
(G) De 31 a 39 horas-aula.
(H) 40 horas-aula.
(I) Mais de 40 horas-aula.

23. QUAL É A SUA SITUAÇÃO TRABALHISTA NESTA ESCOLA? (Marque apenas UMA opção)

(A) Estatutário.
(B) CLT.
(C) Prestador de serviço por contrato temporário.
(D) Prestador de serviço sem contrato.
(E) Outras.

INDIQUE A FREQUÊNCIA COM A QUAL VOCÊ DESENVOLVE AS SEGUINTES PRÁTICAS PEDAGÓGICAS COM SEUS ALUNOS. (Marque apenas UMA opção em cada linha.)

	Semanalmente	Algumas vezes por mês	Uma vez por mês	Uma vez por bimestre	Nunca
24. copiar textos do livro didático ou do quadro de giz (quadro-negro ou lousa).	(A)	(B)	(C)	(D)	(E)
25. conversar sobre textos de jornais e revistas.	(A)	(B)	(C)	(D)	(E)
26. fazer exercícios sobre gramática relacionados com textos de jornais ou revistas.	(A)	(B)	(C)	(D)	(E)
27. automatizar o uso de regras gramaticais.	(A)	(B)	(C)	(D)	(E)
28. ler, discutir com colegas e escrever textos relacionados com o desenvolvimento de projeto temático.	(A)	(B)	(C)	(D)	(E)
29. ler contos, crônicas, poesias ou romances.	(A)	(B)	(C)	(D)	(E)
30. conversar sobre contos, crônicas, poesias ou romances.	(A)	(B)	(C)	(D)	(E)
31. usar contos, crônicas, poesias ou romances para exercitar aspectos da gramática.	(A)	(B)	(C)	(D)	(E)
32. fixar os nomes de conceitos gramaticais e linguísticos.	(A)	(B)	(C)	(D)	(E)
33. discutir um texto, explorando as diferenças entre fatos e opiniões.	(A)	(B)	(C)	(D)	(E)

INDIQUE A FREQUÊNCIA COM A QUAL VOCÊ DESENVOLVE AS SEGUINTES PRÁTICAS PEDAGÓGICAS COM SEUS ALUNOS. (Marque apenas UMA opção em cada linha.)

	Semanalmente	Algumas vezes por mês	Uma vez por mês	Uma vez por bimestre	Nunca
34. fazer exercícios para automatizar procedimentos.	(A)	(B)	(C)	(D)	(E)
35. lidar com problemas que exigem raciocínios diferentes e mais complexos que a maioria dos exemplos usuais.	(A)	(B)	(C)	(D)	(E)
36. falar sobre suas soluções, discutindo os caminhos usados para encontrá-las.	(A)	(B)	(C)	(D)	(E)

37. gravar as regras que permitem obter as respostas certas dos cálculos e problemas.	(A)	(B)	(C)	(D)	(E)
38. lidar com temas que aparecem em jornais e/ou revistas, discutindo a relação dos temas com a Matemática.	(A)	(B)	(C)	(D)	(E)
39. interpretar resultados numéricos obtidos para dar uma resposta adequada ao problema.	(A)	(B)	(C)	(D)	(E)
40. lidar com situações que lhes sejam familiares e que apresentem temas do interesse dos alunos.	(A)	(B)	(C)	(D)	(E)
41. experimentar diferentes modos de resolver um problema ou de efetuar um cálculo.	(A)	(B)	(C)	(D)	(E)
42. aprimorar a precisão e a velocidade de execução de cálculos.	(A)	(B)	(C)	(D)	(E)
43. experimentar diferentes ações (coletar informações recortar, analisar, explorar, discutir, manipular etc.) para resolver problemas.	(A)	(B)	(C)	(D)	(E)

INDIQUE SE VOCÊ UTILIZA OU NÃO <u>NESTA ESCOLA</u>: (Marque apenas UMA opção em cada linha.)

	Sim, utilizo.	**Não utilizo porque não acho necessário.**	**Não utilizo porque a escola não tem.**
44. Computadores	(A)	(B)	(C)
45. Internet	(A)	(B)	(C)
46. Fitas de vídeo ou DVD	(A)	(B)	(C)
47. Jornais e revistas informativas	(A)	(B)	(C)
48. Revistas em quadrinhos	(A)	(B)	(C)
49. Livros de consulta para os professores	(A)	(B)	(C)
50. Livros de literatura em geral	(A)	(B)	(C)
51. Livros didáticos	(A)	(B)	(C)
52. Projetor de slides	(A)	(B)	(C)
53. Retroprojetor	(A)	(B)	(C)
54. Máquina copiadora	(A)	(B)	(C)

55. COMO FOI DESENVOLVIDO O PROJETO PEDAGÓGICO <u>DESTA ESCOLA</u> NESTE ANO?

(A) Pela aplicação de modelo encaminhado pela Secretaria de Educação.
(B) Foi elaborado pelo(a) diretor(a).
(C) O(A) diretor(a) elaborou uma proposta de projeto, apresentou-a aos professores para sugestões e depois chegou à versão final.
(D) Os professores elaboraram uma proposta e, com base nela, o(a) diretor(a) chegou à versão final.
(E) Foi elaborado pelo(a) diretor(a) e por uma equipe de professores.
(F) De outra maneira.
(G) Não sei como foi desenvolvido.
(H) Não existe Projeto Pedagógico.

56. CONSELHO DE CLASSE É UM ÓRGÃO FORMADO POR TODOS OS PROFESSORES QUE LECIONAM EM CADA TURMA/SÉRIE. NESTE ANO, QUANTAS VEZES SE REUNIU O CONSELHO DE CLASSE DE QUE VOCÊ PARTICIPA <u>NESTA ESCOLA</u>?

(A) Uma vez.
(B) Duas vezes.
(C) Três vezes ou mais.
(D) Nenhuma vez.
(E) Não existe Conselho de Classe.

57. VOCÊ TEM CONHECIMENTO DO CONTEÚDO DA LEI N° 11.645 DE 2008 QUE DETERMINA A OBRIGATORIEDADE DO ESTUDO DA TEMÁTICA "HISTÓRIA E CULTURA AFROBRASILEIRA E INDÍGENA" NOS ESTABELECIMENTOS DE ENSINO DO PAÍS?

(A) Sim.
(B) Não. Passe para a questão 59.

58. NESTE ANO, FORAM DESENVOLVIDAS ATIVIDADES PARA ATENDER O DETERMINADO PELA LEI 11.645 DE 2008 NESTA ESCOLA?

(A) Sim, de maneira sistemática e/ou abrangente.
(B) Sim, de maneira assistemática e/ou isolada.
(C) Não.

59. QUANTO DOS CONTEÚDOS PREVISTOS VOCÊ CONSEGUIU DESENVOLVER COM OS ALUNOS DA(S) TURMA(S) AVALIADA(S), NESTE ANO?

(A) Menos de 40%.
(B) Entre 40% e 60%.
(C) Entre 60% e 80%.
(D) Mais de 80%.

QUANTOS DOS ALUNOS DA(S) SÉRIE(S) AVALIADA(S) VOCÊ ACHA QUE (Marque apenas UMA opção em cada linha.)

	Quase todos os alunos.	Um pouco mais da metade dos alunos.	Um pouco menos da metade dos alunos.	Quase nenhum aluno.	Não sei.
60. concluirão o Ensino Fundamental (8.ª série)?	(A)	(B)	(C)	(D)	(E)
61. concluirão o Ensino Médio?	(A)	(B)	(C)	(D)	(E)
62. entrarão para a Universidade?	(A)	(B)	(C)	(D)	(E)

ASSINALE SUA POSIÇÃO EM RELAÇÃO ÀS AFIRMAÇÕES ABAIXO, QUE SE REFEREM AOS POSSÍVEIS PROBLEMAS DE APRENDIZAGEM DOS ALUNOS DA(S) SÉRIE(S) AVALIADA(S). (Marque apenas UMA opção em cada linha.)

	Concordo	Discordo
63. Ocorrem na escola devido à carência de infraestrutura física e/ou pedagógica.	(A)	(B)
64. São decorrentes do ambiente de insegurança física da escola.	(A)	(B)
65. Ocorrem na escola, que oferece poucas oportunidades de desenvolvimento das capacidades intelectuais do aluno.	(A)	(B)
66. Estão relacionados aos conteúdos curriculares, que são inadequados às necessidades dos alunos.	(A)	(B)
67. Estão relacionados ao não-cumprimento do conteúdo curricular.	(A)	(B)
68. Relacionam-se à sobrecarga de trabalho do(as) professores(as), dificultando o planejamento e o preparo das aulas.	(A)	(B)
69. Ocorrem devido ao baixo salário dos professores, que gera insatisfação e desestímulo para a atividade docente.	(A)	(B)
70. São decorrentes do meio em que o aluno vive.	(A)	(B)
71. São decorrentes do nível cultural dos pais dos alunos.	(A)	(B)
72. Estão relacionadas à falta de assistência e acompanhamento da família nos deveres de casa e pesquisas dos alunos.	(A)	(B)
73. Ocorrem devido à falta de aptidão e habilidades do aluno.	(A)	(B)
74. Estão vinculadas à baixa autoestima dos alunos.	(A)	(B)
75. Ocorrem devido ao desinteresse e falta de esforço do aluno.	(A)	(B)
76. São decorrentes da indisciplina dos alunos em sala de aula.	(A)	(B)

OS ITENS DE 77 A 91 APRESENTAM ALGUMAS AFIRMAÇÕES. INDIQUE SEU GRAU DE CONCORDÂNCIA/DISCORDÂNCIA COM CADA UMA DELAS. (Marque apenas UMA alternativa.)

	Concordo totalmente	Concordo	Neutro	Discordo	Discordo totalmente
77. O(A) diretor(a) me anima e me motiva para o trabalho.	(A)	(B)	(C)	(D)	(E)
78. Tenho plena confiança no(a) diretor(a) como profissional.	(A)	(B)	(C)	(D)	(E)
79. O(A) diretor(a) consegue que os professores se comprometam com a escola.	(A)	(B)	(C)	(D)	(E)
80. O(A) diretor(a) estimula as atividades inovadoras.	(A)	(B)	(C)	(D)	(E)
81. O(A) diretor(a) dá atenção especial a aspectos relacionados com a aprendizagem dos alunos.	(A)	(B)	(C)	(D)	(E)
82. O(A) diretor(a) dá atenção especial aos aspectos relacionados com as normas administrativas.	(A)	(B)	(C)	(D)	(E)
83. O(A) diretor(a) dá atenção especial aos aspectos relacionados com a manutenção da escola.	(A)	(B)	(C)	(D)	(E)
84. Sinto-me respeitado(a) pelo(a) diretor(a).	(A)	(B)	(C)	(D)	(E)
85. Respeito o(a) diretor(a).	(A)	(B)	(C)	(D)	(E)
86. Participo das decisões relacionadas ao meu trabalho.	(A)	(B)	(C)	(D)	(E)
87. A equipe de professores leva em consideração minhas ideias.	(A)	(B)	(C)	(D)	(E)
88. Eu levo em consideração as ideias de outros colegas.	(A)	(B)	(C)	(D)	(E)
89. O ensino que a escola oferece aos alunos é muito influenciado pela troca de ideias entre os professores.	(A)	(B)	(C)	(D)	(E)
90. Os professores desta escola procuram coordenar o conteúdo das disciplinas entre as diferentes séries.	(A)	(B)	(C)	(D)	(E)
91. O diretor, professores e demais membros da equipe da escola colaboram para fazer esta escola funcionar bem.	(A)	(B)	(C)	(D)	(E)

AS PERGUNTAS DE 92 A 99 APRESENTAM ALGUNS PROBLEMAS QUE PODEM OCORRER NAS ESCOLAS. RESPONDA SE CADA UM DELES OCORREU OU NÃO NESTE ANO. CASO TENHA OCORRIDO, ASSINALE SE FOI OU NÃO UM PROBLEMA GRAVE, DIFICULTANDO O FUNCIONAMENTO DESTA ESCOLA. (Marque apenas UMA opção em cada linha.)

Ocorreu na Escola	Não	Sim, mas não foi um problema grave.	Sim, e foi um problema grave
92. insuficiência de recursos financeiros?	(A)	(B)	(C)
93. inexistência de professores para algumas disciplinas ou séries?	(A)	(B)	(C)
94. carência de pessoal administrativo?	(A)	(B)	(C)
95. carência de pessoal de apoio pedagógico (coordenador, supervisor, orientador educacional)?	(A)	(B)	(C)
96. falta de recursos pedagógicos?	(A)	(B)	(C)
97. alto índice de faltas por parte de professores?	(A)	(B)	(C)
98. alto índice de faltas por parte de alunos?	(A)	(B)	(C)
99. problemas disciplinares causados pelos alunos?	(A)	(B)	(C)

SOBRE OS FATOS LISTADOS ABAIXO, DIGA SE ELES ACONTECERAM OU NÃO ESTE ANO NESTA ESCOLA.

	QUEM FOI O AGRESSOR?					
	Aluno (1)		Professor (2)		Funcionário (3)	
	Sim	Não	Sim	Não	Sim	Não
100. Agressão verbal a professores	(A)	(B)	(A)	(B)	(A)	(B)
101. Agressão física a professores	(A)	(B)	(A)	(B)	(A)	(B)
102. Agressão verbal a alunos	(A)	(B)	(A)	(B)	(A)	(B)
103. Agressão física a alunos	(A)	(B)	(A)	(B)	(A)	(B)
104. Agressão verbal a funcionários	(A)	(B)	(A)	(B)	(A)	(B)
105. Agressão física a funcionários	(A)	(B)	(A)	(B)	(A)	(B)

SOBRE OS FATOS LISTADOS ABAIXO, DIGA SE ELES ACONTECERAM OU NÃO ESTE ANO, NESTA ESCOLA.

	Sim	Não
106. Você foi vítima de atentado à vida?	(A)	(B)
107. Você foi ameaçado por algum aluno?	(A)	(B)
108. Você foi agredido verbalmente por algum aluno?	(A)	(B)
109. Você foi agredido fisicamente por algum aluno?	(A)	(B)
110. Você foi vítima de furto?	(A)	(B)
111. Você foi vítima de roubo (com uso de violência)?	(A)	(B)
112. Alunos frequentaram as suas aulas sob efeito de bebida alcoólica?	(A)	(B)
113. Alunos frequentaram as suas aulas sob efeito de drogas ilícitas?	(A)	(B)
114. Alunos frequentaram as suas aulas portando arma branca (facas, canivetes etc.)?	(A)	(B)
115. Alunos frequentaram as suas aulas portando arma de fogo?	(A)	(B)

116. VOCÊ CONHECE OS RESULTADOS DO SISTEMA NACIONAL DE AVALIAÇÃO DA EDUCAÇÃO BÁSICA (SAEB)?

(A) Sim.
(B) Não.

117. A SUA ESCOLA PARTICIPOU DA PROVA BRASIL 2007?

(A) Sim.
(B) Não.

118. OS ALUNOS DA(S) TURMA(S) EM QUE VOCÊ LECIONA TÊM LIVROS DIDÁTICOS?

(A) Sim, todos têm.
(B) Sim, a maioria tem.
(C) Sim, metade da turma tem.
(D) Sim, menos da metade da turma tem.
(E) Não, esta turma não recebeu o livro didático.

119. OS ALUNOS DA(S) TURMA(S) EM QUE VOCÊ LECIONA RECEBERAM O LIVRO DIDÁTICO EM TEMPO HÁBIL PARA O INÍCIO DO ANO LETIVO?

(A) Sim.
(B) Não.

120. NA ESCOLHA DO LIVRO DIDÁTICO UTILIZADO NA(S) TURMA(S) EM QUE VOCÊ LECIONA, FOI CONSULTADO O "GUIA DE LIVROS DIDÁTICOS" DA SEB/MEC?

(A) Sim.
(B) Não.

121. PARA A DISCIPLINA QUE VOCÊ MINISTRA, COMO FOI ESCOLHIDO O LIVRO DIDÁTICO UTILIZADO NA(S) TURMA(S) AVALIADA(S)?
(Escolha apenas UMA alternativa.)

(A) Escolhi junto com outros professores.
(B) O coordenador pedagógico, o orientador educacional e o diretor escolheram depois de consultar a equipe de professores da disciplina.
(C) O coordenador pedagógico e/ou orientador educacional escolheu sozinho.
(D) O diretor escolheu sozinho.
(E) O livro foi escolhido por órgãos de gerência externa à escola.
(F) Não sei como este livro foi escolhido.
(G) Não utilizo livro didático nestas turmas.

122. O LIVRO DIDÁTICO ESCOLHIDO FOI O RECEBIDO?

(A) Sim.
(B) Não.
(C) Não sei.

123. COMO VOCÊ CONSIDERA O(S) LIVRO(S) DIDÁTICO(S) UTILIZADO(S) NA(S) DISCIPLINA(S) QUE VOCÊ MINISTRA NA(S) TURMA(S) AVALIADA(S)?

(A) Ótimo.
(B) Bom.
(C) Razoável.
(D) Ruim.
(E) Não se aplica.

SAEB

ProvaBrasil 2011

Avaliação do Rendimento Escolar

PLANO DE DESENVOLVIMENTO DA EDUCAÇÃO

QUESTIONÁRIO DO PROFESSOR

Senhor(a) Professor(a),

O Sistema Nacional de Avaliação da Educação Básica, SAEB, é composto por dois tipos de instrumentos de avaliação: as provas aplicadas aos estudantes e os questionários socioeconômicos, que devem ser respondidos pelos estudantes, professores e diretores das escolas avaliadas.

O presente questionário tem como objetivo coletar dados acerca da formação profissional, das práticas pedagógicas e do perfil socioeconômico e cultural dos professores das turmas em que a avaliação está sendo aplicada. Para responder a cada questão deste questionário, preencha, na **FOLHA DE RESPOSTAS**, o campo correspondente à alternativa de sua escolha. Utilize caneta esferográfica de tinta azul ou preta .

A sua colaboração ao preencher este questionário será de grande valia para o êxito da avaliação e para o aprimoramento da educação brasileira.

INEP Ministério da Educação GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

Manufatura Violeta Preto

Cliente: Questionário do Professor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
[X] NOVO [ ] Rep.Alt.OF.: . . . . - .			PF:	. . . .	1/8 via(s)

ATENÇÃO: SE VOCÊ JÁ PREENCHEU ESTE QUESTIONÁRIO PARA ALGUMA TURMA DESTA ESCOLA, PASSE PARA A QUESTÃO 115.

1. SEXO

A Masculino.
B Feminino.

2. IDADE

A Até 24 anos.
B De 25 a 29 anos.
C De 30 a 39 anos.
D De 40 a 49 anos.
E De 50 a 54 anos.
F 55 anos ou mais.

3. COMO VOCÊ SE CONSIDERA?

A Branco (a).
B Pardo (a).
C Preto (a).
D Amarelo (a).
E Indígena.
F Não sei.

4. QUAL O SEU NÍVEL DE ESCOLARIDADE (ATÉ A GRADUAÇÃO).
Caso Marque "A", "B" ou "C", passe para questão 11.

A Menos que o Ensino Médio (antigo 2.º grau).
B Ensino Médio – Magistério (antigo 2.º grau).
C Ensino Médio – Outros (antigo 2.º grau).
D Ensino Superior – Pedagogia.
E Ensino Superior – Licenciatura em Matemática.
F Ensino Superior – Licenciatura em Letras.
G Ensino Superior – Escola Normal Superior.
H Ensino Superior - Outros.

5. HÁ QUANTOS ANOS VOCÊ OBTEVE O NÍVEL DE ESCOLARIDADE ASSINALADO ANTERIORMENTE?

A Há 2 anos ou menos.
B De 3 a 7 anos.
C De 8 a 14 anos.
D De 15 a 20 anos.
E Há mais de 20 anos.

6. EM QUE TIPO DE INSTITUIÇÃO VOCÊ FEZ O CURSO SUPERIOR? SE VOCÊ ESTUDOU EM MAIS DE UMA INSTITUIÇÃO, ASSINALE AQUELA EM QUE OBTEVE O SEU TÍTULO PROFISSIONAL.

A Pública federal.
B Pública estadual.
C Pública municipal.
D Privada.
E Não se aplica.

7. QUAL ERA A NATUREZA DESSA INSTITUIÇÃO?

A Faculdade isolada.
B Centro Universitário.
C Universidade.
D Não se aplica.

8. DE QUE FORMA VOCÊ REALIZOU O CURSO SUPERIOR?

A Presencial.
B Semi-presencial.
C À distância.
D Não se aplica.

9. INDIQUE A MODALIDADE DE CURSOS DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

A Atualização ou Aperfeiçoamento (mínimo de 180 horas).
B Especialização (mínimo de 360 horas).
C Mestrado.
D Doutorado.
E Não fiz ou não completei curso de pós-graduação. **(passe para questão 11)**

10. INDIQUE QUAL A ÁREA TEMÁTICA DO CURSO DE PÓS-GRADUAÇAO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

A Educação, enfatizando alfabetização.
B Educação, enfatizando linguística e/ou letramento.
C Educação, enfatizando educação matemática.
D Educação – outras ênfases.
E Outras áreas que não a Educação.

11. VOCÊ PARTICIPOU DE ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO ETC) NOS ÚLTIMOS DOIS ANOS?

A Sim.
B Não. **(passe para questão 14)**

12. QUAL A CARGA HORÁRIA DA ATIVIDADE CONSIDERADA MAIS RELEVANTE DENTRE AS QUAIS VOCÊ PARTICIPOU?

A Menos de 20 horas.
B De 21 a 40 horas.
C De 41 a 80 horas.
D Mais de 80 horas.

13. VOCÊ UTILIZA OS CONHECIMENTOS ADQUIRIDOS NAS ATIVIDADES DE FORMAÇÃO CONTINUADA PARA A MELHORIA DE SUA PRÁTICA EM SALA DE AULA?

A Quase sempre.
B Eventualmente.
C Quase nunca.
D Nunca.

14. NESTA ESCOLA, QUAL É, APROXIMADAMENTE, O SEU SALÁRIO BRUTO? (COM ADICIONAIS, SE HOUVER) (Preencha os espaços com o valor e marque, na folha de respostas, os campos correspondentes a cada algarismo.)

☐☐.☐☐☐,☐☐

15. ALÉM DA ATIVIDADE COMO DOCENTE NESTA ESCOLA, VOCÊ EXERCE OUTRA ATIVIDADE QUE CONTRIBUI PARA SUA RENDA PESSOAL?

A Sim, na área de Educação.
B Sim, fora da área de Educação.
C Não. **(Passe para a questão 17).**

16. QUAL É, APROXIMADAMENTE, SEU SALÁRIO BRUTO (COM ADICIONAIS, SE HOUVER) COMO PROFESSOR(A)? (Soma de tudo o que você ganha como professor(a)) (Preencha os espaços com o valor e marque, na folha de respostas, os campos correspondentes a cada algarismo.)

☐☐.☐☐☐,☐☐

17. HÁ QUANTOS ANOS VOCÊ LECIONA?

A Menos de 1 ano.
B De 1 a menos de 2 anos.
C De 2 a menos de 5 anos.
D De 5 a menos de 7 anos.
E De 7 a menos de 10 anos
F De 10 a menos de 15 anos.
G De 15 a menos de 20 anos.
H Mais de 20 anos.

18. HÁ QUANTOS ANOS VOCÊ TRABALHA NESTA ESCOLA?

A Menos de 1 ano.
B De 1 a menos de 2 anos.
C De 2 a menos de 5 anos.
D De 5 a menos de 7 anos.
E De 7 a menos de 10 anos.
F De 10 a menos de 15 anos.
G De 15 a menos de 20 anos.
H Mais de 20 anos.

19. HÁ QUANTOS ANOS VOCÊ MINISTRA AULAS PARA ALUNOS DA SÉRIE DESTA TURMA?

A Menos de 2 anos.
B De 2 a menos de 4 anos.
C De 4 a menos de 6 anos.
D De 6 a menos de 8 anos.
E 8 anos ou mais.

20. NESTA ESCOLA, QUAL A SUA CARGA HORÁRIA SEMANAL? (Considere a carga horária contratual: horas-aula mais horas para atividades, se houver.)

A Até 19 horas-aula.
B 20 horas-aula.
C De 21 a 24 horas-aula.
D 25 horas-aula.
E De 26 a 29 horas-aula.
F 30 horas-aula.
G De 31 a 39 horas-aula.
H 40 horas-aula.
I Mais de 40 horas-aula.

Manufatura Violeta Preto

Cliente: Questionário do Professor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
X NOVO ☐ Rep.Alt.OF.: . . . . . - .			PF:	. . . .	Todas via(s)

21. EM QUANTAS ESCOLAS VOCÊ TRABALHA?
(Caso marque a alternativa **A**, passe para questão 23)

- A Apenas nesta escola.
- B Em 2 escolas.
- C Em 3 escolas.
- D Em 4 ou mais escolas.

22. AO TODO, QUANTAS HORAS-AULA VOCÊ MINISTRA POR SEMANA? (Não considere aulas particulares)

- A Até 19 horas-aula.
- B 20 horas-aula.
- C De 21 a 24 horas-aula.
- D 25 horas-aula.
- E De 26 a 29 horas-aula.
- F 30 horas-aula.
- G De 31 a 39 horas-aula.
- H 40 horas-aula.
- I Mais de 40 horas-aula.

23. QUAL É A SUA SITUAÇÃO TRABALHISTA NESTA ESCOLA? (Marque apenas **UMA** opção)

- A Estatutário.
- B CLT.
- C Prestador de serviço por contrato temporário.
- D Prestador de serviço sem contrato.
- E Outras.

VOCÊ COSTUMA:	Sempre ou quase sempre.	De vez em quando.	Quase nunca.	Nunca.
24. Frequentar bibliotecas.	A	B	C	D
25. Ir ao cinema.	A	B	C	D
26. Ir ao museu.	A	B	C	D
27. Ver apresentações teatrais.	A	B	C	D
28. Ver apresentações musicais ou de dança.	A	B	C	D

EM SEU TEMPO LIVRE, VOCÊ LÊ:	Sempre ou quase sempre.	Eventualmente.	Nunca ou quase nunca.
29. Jornais.	A	B	C
30. Revistas de informação geral.	A	B	C
31. Revistas de humor /quadrinhos.	A	B	C
32. Revistas de divulgação científica/cultural.	A	B	C
33. Revistas sobre comportamento, celebridades, esporte e TV .	A	B	C
34. Livros.	A	B	C
35. Sites da Internet.	A	B	C

36. DENTRO DA SUA CARGA HORÁRIA, QUANTAS HORAS SEMANAIS SÃO DEDICADAS À ATIVIDADES EXTRA-CLASSE (FORMAÇÃO E ESTUDO, PLANEJAMENTO, PRODUÇÃO DE RECURSOS DIDÁTICOS ETC)?

- A Nenhuma
- B Até 1/3 da carga horária, inclusive
- C Mais de 1/3 da carga horária

Comando das Questões 37 a 41

INDIQUE SE VOCÊ UTILIZA OU NÃO NESTA ESCOLA: (Marque apenas **UMA** opção em cada linha.)

	Sim, utilizo.	Não utilizo porque não acho necessário.	Não utilizo porque a escola não tem.
37. Jornais e revistas informativas.	A	B	C
38. Livros de literatura em geral.	A	B	C
39. Projetor de slides.	A	B	C
40. Retroprojetor.	A	B	C
41. Máquina copiadora.	A	B	C

42. COMO FOI DESENVOLVIDO O PROJETO PEDAGÓGICO DESTA ESCOLA NESTE ANO? (Marque apenas **UMA** opção)

- A Pela aplicação de modelo encaminhado pela Secretaria de Educação.
- B Foi elaborado pelo(a) diretor(a).
- C O(A) diretor(a) elaborou uma proposta de projeto, apresentou-a aos professores para sugestões e depois chegou à versão final.
- D Os professores elaboraram uma proposta e, com base nela, o diretor chegou à versão final.
- E Foi elaborado pelo(a) diretor(a) e por uma equipe de professores.
- F De outra maneira.
- G Não sei como foi desenvolvido.
- H Não existe Projeto Pedagógico.

Manufatura Violeta Preto

Cliente: Questionário do Professor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
[X] NOVO [ ] Rep.Alt.OF.: . . . . . - .			PF:	. . . .	Todas via(s)

43. CONSELHO DE CLASSE É UM ÓRGÃO FORMADO POR TODOS OS PROFESSORES QUE LECIONAM EM CADA TURMA/SÉRIE. NESTE ANO, QUANTAS VEZES SE REUNIRAM OS CONSELHOS DE CLASSE DESTA ESCOLA?

A Uma vez.
B Duas vezes.
C Três vezes ou mais.
D Nenhuma vez.
E Não existe Conselho de Classe.

44. VOCÊ TEM CONHECIMENTO DO CONTEÚDO DA LEI N.° 11.645 DE 2008 QUE DETERMINA A OBRIGATORIEDADE DO ESTUDO DA TEMÁTICA "HISTÓRIA E CULTURA AFRO-BRASILEIRA E INDÍGENA" NOS ESTABELECIMENTOS DE ENSINO DO PAÍS?

A Sim.
B Não.(passe para questão 46)

45. NESTE ANO, FORAM DESENVOLVIDAS ATIVIDADES PARA ATENDER O DETERMINADO PELA LEI N.º 11.645 DE 2008 NESTA ESCOLA?

A Sim, de maneira sistemática e/ou abrangente.
B Sim, de maneira assistemática e/ou isolada.
C Não.

Comando das Questões 46 a 59 — **ASSINALE SUA POSIÇÃO EM RELAÇÃO ÀS AFIRMAÇÕES ABAIXO, QUE SE REFEREM AOS POSSÍVEIS PROBLEMAS DE APRENDIZAGEM DOS ALUNOS DA(S) SÉRIE(S) AVALIADA(S).**

46. OCORREM NA ESCOLA DEVIDO À CARÊNCIA DE INFRA-ESTRUTURA FÍSICA E/OU PEDAGÓGICA.
A Concordo. B Discordo.

47. SÃO DECORRENTES DO AMBIENTE DE INSEGURANÇA FÍSICA DA ESCOLA.
A Concordo. B Discordo.

48. OCORREM NA ESCOLA POR OFERECER POUCAS OPORTUNIDADES DE DESENVOLVIMENTO DAS CAPACIDADES INTELECTUAIS DO ALUNO.
A Concordo. B Discordo.

49. ESTÃO RELACIONADOS AOS CONTEÚDOS CURRICULARES, QUE SÃO INADEQUADOS ÀS NECESSIDADES DOS ALUNOS.
A Concordo. B Discordo.

50. ESTÃO RELACIONADOS AO NÃO-CUMPRIMENTO DO CONTEÚDO CURRICULAR.
A Concordo. B Discordo.

51. RELACIONAM-SE À SOBRECARGA DE TRABALHO DO(AS) PROFESSORES(AS), DIFICULTANDO O PLANEJAMENTO E O PREPARO DAS AULAS.
A Concordo. B Discordo.

52. OCORREM DEVIDO AO BAIXO SALÁRIO DOS PROFESSORES, QUE GERA INSATISFAÇÃO E DESESTÍMULO PARA A ATIVIDADE DOCENTE.
A Concordo. B Discordo.

53. SÃO DECORRENTES DO MEIO EM QUE O ALUNO VIVE.
A Concordo. B Discordo.

54. SÃO DECORRENTES DO NÍVEL CULTURAL DOS PAIS DOS ALUNOS.
A Concordo. B Discordo.

55. ESTÃO RELACIONADAS À FALTA DE ASSISTÊNCIA E ACOMPANHAMENTO DA FAMÍLIA NOS DEVERES DE CASA E PESQUISAS DOS ALUNOS.
A Concordo. B Discordo.

56. OCORREM DEVIDO À FALTA DE APTIDÃO E HABILIDADES DO ALUNO.
A Concordo. B Discordo.

57. ESTÃO VINCULADOS À BAIXA AUTOESTIMA DOS ALUNOS.
A Concordo. B Discordo.

58. OCORREM DEVIDO AO DESINTERESSE E FALTA DE ESFORÇO DO ALUNO.
A Concordo. B Discordo.

59. SÃO DECORRENTES DA INDISCIPLINA DOS ALUNOS EM SALA DE AULA.
A Concordo. B Discordo.

Manufatura Violeta Preto

Cliente: Questionário do Professor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
[X] NOVO [ ] Rep.Alt.OF.: . . . . - .			PF:	. . . .	Todas via(s)

Comando das Questões 60 a 74 — **OS ITENS DE 60 A 74 APRESENTAM ALGUMAS AFIRMAÇÕES. INDIQUE SEU GRAU DE CONCORDÂNCIA/DISCORDÂNCIA COM CADA UMA DELAS.** (Marque apenas **UMA** opção em cada linha.)

	Concordo totalmente	Concordo	Neutro	Discordo	Discordo totalmente
60. O(A) diretor(a) me anima e me motiva para o trabalho.	A	B	C	D	E
61. Tenho plena confiança no(a) diretor(a) como profissional.	A	B	C	D	E
62. O(a) diretor(a) consegue que os professores se comprometam com a escola.	A	B	C	D	E
63. O(a) diretor(a) estimula as atividades inovadoras.	A	B	C	D	E
64. O(a) diretor(a) dá atenção especial a aspectos relacionados com a aprendizagem dos alunos.	A	B	C	D	E
65. O(a) diretor(a) dá atenção especial a aspectos relacionados com as normas administrativas.	A	B	C	D	E
66. O(a) diretor(a) dá atenção especial a aspectos relacionados com a manutenção da escola.	A	B	C	D	E
67. Sinto-me respeitado(a) pelo(a) diretor(a).	A	B	C	D	E
68. Respeito o(a) diretor(a).	A	B	C	D	E
69. Participo das decisões relacionadas com o meu trabalho.	A	B	C	D	E
70. A equipe de professores leva em consideração minhas ideias.	A	B	C	D	E
71. Eu levo em consideração as ideias de outros colegas.	A	B	C	D	E
72. O ensino que a escola oferece aos alunos é muito influenciado pela troca de ideias entre os professores.	A	B	C	D	E
73. Os professores desta escola procuram coordenar o conteúdo das disciplinas entre as diferentes séries.	A	B	C	D	E
74. O diretor, os professores e os demais membros da equipe da escola colaboram para fazer esta escola funcionar bem.	A	B	C	D	E

Comando das Questões 75 a 82 — **AS PERGUNTAS DE 75 A 82 APRESENTAM ALGUNS PROBLEMAS QUE PODEM OCORRER NAS ESCOLAS. RESPONDA SE CADA UM DELES OCORREU OU NÃO NESTE ANO. CASO TENHA OCORRIDO, ASSINALE SE FOI OU NÃO UM PROBLEMA GRAVE, DIFICULTANDO O FUNCIONAMENTO DA ESCOLA.** (Marque apenas **UMA** opção em cada linha.)

OCORREU NA ESCOLA	Não	Sim, mas não foi um problema grave	Sim, e foi um problema grave
75. Insuficiência de recursos financeiros?	A	B	C
76. Inexistência de professores para algumas disciplinas ou séries?	A	B	C
77. Carência de pessoal administrativo?	A	B	C
78. Carência de pessoal de apoio pedagógico (coordenador, supervisor, orientador educacional)?	A	B	C
79. Falta de recursos pedagógicos?	A	B	C
80. Alto índice de faltas por parte dos professores?	A	B	C
81. Alto índice de faltas por parte dos alunos?	A	B	C
82. Problemas disciplinares causados pelos alunos?	A	B	C

Comando das Questões 83 a 100 — **SOBRE OS FATOS LISTADOS ABAIXO, DIGA SE ELES ACONTECERAM OU NÃO ESTE ANO NESTA ESCOLA.**

QUEM FOI O AGRESSOR?

	ALUNO			PROFESSOR			FUNCIONÁRIO	
	Sim	Não		Sim	Não		Sim	Não
83. Agressão verbal a professores.	A	B	**89.** Agressão verbal a professores.	A	B	**95.** Agressão verbal a professores.	A	B
84. Agressão física a professores.	A	B	**90.** Agressão física a professores.	A	B	**96.** Agressão física a professores.	A	B
85. Agressão verbal a alunos.	A	B	**91.** Agressão verbal a alunos.	A	B	**97.** Agressão verbal a alunos.	A	B
86. Agressão física a alunos.	A	B	**92.** Agressão física a alunos.	A	B	**98.** Agressão física a alunos.	A	B
87. Agressão verbal a funcionários.	A	B	**93.** Agressão verbal a funcionários.	A	B	**99.** Agressão verbal a funcionários.	A	B
88. Agressão física a funcionários.	A	B	**94.** Agressão física a funcionários.	A	B	**100.** Agressão física a funcionários.	A	B

Manufatura Violeta Preto

Cliente: Questionário do Professor | Lar .(mm) 206 | Alt .(") 278 | RS: . . . - . . . | Filial | DE p/ a - - - da(s)

[X] NOVO [ ] Rep.Alt.OF.: . . . . - . | PF: . . . . | . . . . | Todas via(s)

Comando das Questões 101 a 110 — **SOBRE OS FATOS LISTADOS ABAIXO, DIGA SE ELES ACONTECERAM OU NÃO ESTE ANO, NESTA ESCOLA.**

	Sim	Não
101. Você foi vítima de atentado à vida?	A	B
102. Você foi ameaçado por algum aluno?	A	B
103. Você foi agredido verbalmente por algum aluno?	A	B
104. Você foi agredido fisicamente por algum aluno?	A	B
105. Você foi vítima de furto?	A	B
106. Você foi vítima de roubo (com uso de violência)?	A	B
107. Alunos frequentaram as suas aulas sob efeito de bebida alcoólica?	A	B
108. Alunos frequentaram as suas aulas sob efeito de drogas ilícitas?	A	B
109. Alunos frequentaram as suas aulas portando arma branca (facas, canivetes etc.)?	A	B
110. Alunos frequentaram as suas aulas portando arma de fogo?	A	B

111. A SUA ESCOLA PARTICIPOU DA PROVA BRASIL DE 2009?

A Sim.
B Não.

VOCÊ CONHECE OS RESULTADOS DO SISTEMA DE AVALIAÇÃO DA EDUCAÇÃO BÁSICA – SAEB

112. DA SUA ESCOLA?
A Sim.
B Não.

113.DO SEU MUNICÍPIO?
A Sim.
B Não.

114. DO SEU ESTADO?
A Sim.
B Não.

QUESTÕES ESPECÍFICAS PARA ESTA TURMA

Comando das Questões 115 a 120 — **INDIQUE SE VOCÊ UTILIZA OU NÃO NESTA TURMA:** (Marque apenas **UMA** opção em cada linha.)

	Sim, utilizo.	Não utilizo porque não acho necessário.	Não utilizo porque a escola não tem.
115. Computadores.	A	B	C
116. Internet.	A	B	C
117. Fitas de vídeo ou DVD.	A	B	C
118. Jornais e revistas informativas.	A	B	C
119. Revistas em quadrinhos.	A	B	C
120. Livros didáticos.	A	B	C

121. QUANTO DOS CONTEÚDOS PREVISTOS VOCÊ CONSEGUIU DESENVOLVER COM OS ALUNOS DESTA TURMA , NESTE ANO?

A Menos de 40%.
B Entre 40% e 60%.
C Entre 60% e 80%.
D Mais de 80%.

Comando das Questões 122 a 125 — **QUANTOS DOS ALUNOS DESTA TURMA VOCÊ ACHA QUE:**

122. CONCLUIRÃO OS ANOS INICIAIS DO ENSINO FUNDAMENTAL (4.ª SÉRIE/5.º ANO)?
A Quase todos os alunos.
B Um pouco mais da metade dos alunos.
C Um pouco menos da metade dos alunos.
D Poucos alunos.
E Não sei.

123. CONCLUIRÃO O ENSINO FUNDAMENTAL (8.ª SÉRIE/9.º ANO)?
A Quase todos os alunos.
B Um pouco mais da metade dos alunos.
C Um pouco menos da metade dos alunos.
D Poucos alunos.
E Não sei.

124. CONCLUIRÃO O ENSINO MÉDIO?
A Quase todos os alunos.
B Um pouco mais da metade dos alunos.
C Um pouco menos da metade dos alunos.
D Poucos alunos.
E Não sei.

125. ENTRARÃO PARA A UNIVERSIDADE?
A Quase todos os alunos.
B Um pouco mais da metade dos alunos.
C Um pouco menos da metade dos alunos.
D Poucos alunos.
E Não sei.

Manufatura Violeta Preto

Cliente: Questionário do Professor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
X NOVO ☐ Rep.Alt.OF.: . . . . - .			PF:	. . . .	Todas via(s)

126. OS ALUNOS DESTA TURMA TÊM LIVROS DIDÁTICOS?

A Sim, todos têm.
B Sim, a maioria tem.
C Sim, metade da turma tem.
D Sim, menos da metade da turma tem.
E Não, esta turma não recebeu o livro didático. (passe para questão 129)

127. OS ALUNOS DESTA TURMA RECEBERAM O LIVRO DIDÁTICO NO INÍCIO DO ANO LETIVO?

A Sim.
B Não.

128. O LIVRO DIDÁTICO ESCOLHIDO FOI O RECEBIDO?

A Sim.
B Não.

129. COMO VOCÊ CONSIDERA O(S) LIVRO(S) DIDÁTICO(S) UTILIZADO(S) POR VOCÊ NA(S) DISCIPLINA(S) QUE MINISTRA NESTA TURMA?

A Ótimo.
B Bom.
C Razoável.
D Ruim.
E Não se aplica.

130. NA ESCOLHA DO LIVRO DIDÁTICO UTILIZADO NESTA TURMA EM QUE VOCÊ LECIONA, FOI CONSULTADO O "GUIA DE LIVROS DIDÁTICOS" DA SEB/MEC?

A Sim.
B Não.

131. PARA A DISCIPLINA QUE VOCÊ MINISTRA, COMO FOI ESCOLHIDO O LIVRO DIDÁTICO PARA UTILIZAÇÃO NESTA TURMA? (Marque apenas **UMA** opção.)

A Escolhi junto com outros professores.
B O coordenador pedagógico, o orientador educacional e o diretor escolheram depois de consultar a equipe de professores da disciplina.
C O coordenador pedagógico e/ou orientador educacional escolheu sozinho.
D O diretor escolheu sozinho.
E O livro foi escolhido por órgãos de gerência externa à escola.
F Não sei como este livro foi escolhido.
G Não utilizo livro didático nesta turma.

132. COMO VOCÊ UTILIZA A BIBLIOTECA OU SALA DE LEITURA DA ESCOLA EM APOIO ÀS SUAS AULAS NESTA TURMA?

A Apenas para encaminhar os alunos que atrapalham as aulas.
B Apenas para momentos de leitura coletiva.
C Para leituras coletivas e individuais.
D Para leituras e pesquisas individuais ou em grupo.
E Para momentos de leitura literária e estudos em geral.

SE VOCÊ É PROFESSOR DE LÍNGUA PORTUGUESA RESPONDA ÀS QUESTÕES DE 133 A 141. SE VOCÊ É PROFESSOR DE MATEMÁTICA PASSE PARA AS QUESTÕES 142 A 152. SE VOCÊ É PROFESSOR DAS DUAS DISCIPLINAS RESPONDA ÀS QUESTÕES DE 133 A 152.

Comando das Questões 133 a 141 — **INDIQUE A FREQUÊNCIA COM A QUAL VOCÊ DESENVOLVE AS SEGUINTES PRÁTICAS PEDAGÓGICAS COM SEUS ALUNOS NESTA TURMA.**

133. COPIAR TEXTOS DO LIVRO DIDÁTICO OU DO QUADRO NEGRO OU LOUSA.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

134. PROMOVER DISCUSSÕES A PARTIR DE TEXTOS DE JORNAIS E REVISTAS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

135. FAZER EXERCÍCIOS SOBRE GRAMÁTICA RELACIONADOS COM TEXTOS DE JORNAIS OU REVISTAS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

136. LER, DISCUTIR COM COLEGAS E ESCREVER TEXTOS RELACIONADOS COM O DESENVOLVIMENTO DE PROJETO TEMÁTICO.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

137. LER CONTOS, CRÔNICAS, POESIAS OU ROMANCES.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

138. CONVERSAR SOBRE CONTOS, CRÔNICAS, POESIAS OU ROMANCES.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

139. UTILIZAR CONTOS, CRÔNICAS, POESIAS OU ROMANCES PARA EXERCITAR ASPECTOS DA GRAMÁTICA.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

140. FIXAR OS NOMES DE CONCEITOS GRAMATICAIS E LINGUÍSTICOS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

141. DISCUTIR UM TEXTO, EXPLORANDO AS DIFERENÇAS ENTRE FATOS E OPINIÕES.

A Semanalmente. B Algumas vezes por mês. C Uma vez por mês. D Uma vez por bimestre. E Nunca.

Manufatura Violeta Preto

Cliente: Questionário do Professor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
[X] NOVO [ ] Rep.Alt.OF.: . . . . - .			PF:	. . . .	Todas via(s)

Comando das Questões 142 a 151 — INDIQUE A FREQUÊNCIA COM A QUAL VOCÊ DESENVOLVE AS SEGUINTES PRÁTICAS PEDAGÓGICAS COM SEUS ALUNOS NESTA TURMA.

142. FAZER EXERCÍCIOS PARA FIXAR PROCEDIMENTOS E REGRAS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

143. LIDAR COM SITUAÇÕES PROBLEMAS QUE EXIGEM RACIOCÍNIOS DIFERENTES E MAIS COMPLEXOS QUE A MAIORIA DOS EXEMPLOS USUAIS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

144. FALAR SOBRE SUAS SOLUÇÕES, DISCUTINDO OS CAMINHOS USADOS PARA ENCONTRÁ-LAS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

145. GRAVAR AS REGRAS QUE PERMITEM OBTER AS RESPOSTAS CERTAS DOS CÁLCULOS E PROBLEMAS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

146. LIDAR COM TEMAS QUE APARECEM EM JORNAIS E/OU REVISTAS, DISCUTINDO A RELAÇÃO DOS TEMAS COM A MATEMÁTICA.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

147. INTERPRETAR RESULTADOS NUMÉRICOS OBTIDOS PARA DAR UMA RESPOSTA ADEQUADA AO PROBLEMA.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

148. LIDAR COM SITUAÇÕES QUE LHES SEJAM FAMILIARES E QUE APRESENTEM TEMAS DE INTERESSE DOS ALUNOS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

149. EXPERIMENTAR DIFERENTES MODOS DE RESOLVER UM PROBLEMA OU DE EFETUAR UM CÁLCULO.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

150. APRIMORAR A PRECISÃO E A VELOCIDADE DE EXECUÇÃO DE CÁLCULOS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

151. EXPERIMENTAR DIFERENTES AÇÕES (COLETAR INFORMAÇÕES, RECORTAR, ANALISAR, EXPLORAR, DISCUTIR, MANIPULAR ETC.) PARA RESOLVER PROBLEMAS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

152. INCENTIVAR E ESTIMULAR O ALUNO A ANALISAR CRITICAMENTE SE OS RESULTADOS OBTIDOS NA RESOLUÇÃO DE UM PROBLEMA SÃO PLAUSÍVEIS.

A Semanalmente.
B Algumas vezes por mês.
C Uma vez por mês.
D Uma vez por bimestre.
E Nunca.

Manufatura Violeta Preto

Cliente: Questionário do Professor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
X NOVO ☐ Rep.Alt.OF.: . . . . - .			PF:	. . . .	Todas via(s)

SAEB

Prova Brasil 2013

Avaliação do Rendimento Escolar

PLANO DE DESENVOLVIMENTO DA EDUCAÇÃO

QUESTIONÁRIO DO PROFESSOR

Senhor(a) Professor(a),

As avaliações do Sistema Nacional de Avaliação da Educação Básica (SAEB) são compostas por dois tipos de instrumentos de avaliação: as provas aplicadas aos estudantes e os questionários socioeconômicos, que devem ser respondidos pelos estudantes, professores e diretores das escolas avaliadas.

O presente questionário tem como objetivo coletar dados acerca da formação profissional, das práticas pedagógicas e do perfil socioeconômico e cultural dos professores das turmas em que a avaliação está sendo aplicada. Para responder a cada questão deste questionário, preencha, no **CARTÃO-RESPOSTA**, o campo correspondente à alternativa de sua escolha. Utilize caneta esferográfica de tinta preta .

A sua colaboração ao preencher este questionário será de grande valia para o êxito da avaliação e para o aprimoramento da educação brasileira.

Por gentileza, escreva o seu CPF.

NÚMERO DO SEU CPF | | | | | | | | | | – | |

INEP Ministério da Educação GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

INFORMAÇÕES BÁSICAS - Estas questões são sobre sua formação, experiência profissional e características funcionais.

1. QUAL É O SEU SEXO?

A Masculino.
B Feminino.

2. VOCÊ PODERIA NOS DIZER A SUA FAIXA ETÁRIA?

A Até 24 anos.
B De 25 a 29 anos.
C De 30 a 39 anos.
D De 40 a 49 anos.
E De 50 a 54 anos.
F 55 anos ou mais.

3. COMO VOCÊ SE CONSIDERA?

A Branco (a).
B Pardo (a).
C Preto (a).
D Amarelo (a).
E Indígena.
F Não quero declarar.
G Não sei.

4. QUAL É O MAIS ALTO NÍVEL DE ESCOLARIDADE QUE VOCÊ CONCLUIU (ATÉ A GRADUAÇÃO)?

A Menos que o Ensino Médio (antigo 2.º grau).
B Ensino Médio – Magistério (antigo 2.º grau).
C Ensino Médio – Outros (antigo 2.º grau).
D Ensino Superior – Pedagogia.
E Ensino Superior – Curso Normal Superior.
F Ensino Superior – Licenciatura em Matemática.
G Ensino Superior – Licenciatura em Letras.
H Ensino Superior - Outras Licenciaturas.
I Ensino Superior - Outras áreas.

5. HÁ QUANTOS ANOS VOCÊ OBTEVE O NÍVEL DE ESCOLARIDADE ASSINALADO ANTERIORMENTE (ATÉ A GRADUAÇÃO)?

A Há menos 2 anos.
B De 2 a 7 anos.
C De 8 a 14 anos.
D De 15 a 20 anos.
E Há mais de 20 anos.

6. INDIQUE EM QUE TIPO DE INSTITUIÇÃO VOCÊ OBTEVE SEU DIPLOMA DE ENSINO SUPERIOR.

A Não conclui o ensino superior.
B Privada.
C Pública Federal.
D Pública Estadual.
E Pública Municipal.

7. DE QUE FORMA VOCÊ REALIZOU O CURSO DE ENSINO SUPERIOR?

A Não conclui o ensino superior.
B Presencial.
C Semipresencial.
D A distância.

8. INDIQUE O CURSO DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

A Não fiz ou não completei curso de pós-graduação.
B Atualização ou Aperfeiçoamento (mínimo 180 horas).
C Especialização (mínimo de 360 horas).
D Mestrado.
E Doutorado.

9. INDIQUE A ÁREA TEMÁTICA DO CURSO DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

A Não fiz ou não completei curso de pós-graduação.
B Educação, enfatizando alfabetização.
C Educação, enfatizando linguística e/ou letramento.
D Educação, enfatizando educação matemática.
E Educação – outras ênfases.
F Outras áreas que não a Educação.

10. COMO PROFESSOR, QUAL É, APROXIMADAMENTE, O SEU SALÁRIO BRUTO?(COM ADICIONAIS, SE HOUVER).

A Até R$ 678,00.
B Entre R$ 679,00 e R$ 1.017,00.
C Entre R$ 1.018,00 e R$ 1.356,00.
D Entre R$ 1.357,00 e R$ 1.695,00.
E Entre R$ 1.696,00 e R$ 2.034,00.
F Entre R$ 2.035,00 e R$ 2.373,00.
G Entre R$ 2.374,00 e R$ 2.712,00.
H Entre R$ 2.713,00 e R$ 3.390,00.
I Entre R$ 3.391,00 e R$ 4.746,00.
J Entre R$ 4.747,00 e R$ 6.780,00.
K R$ 6.781,00 ou mais.

11. ALÉM DA ATIVIDADE COMO DOCENTE NESTA ESCOLA, VOCÊ EXERCE OUTRA ATIVIDADE QUE CONTRIBUI PARA SUA RENDA PESSOAL?

A Sim, na área de Educação.
B Sim, fora da área de Educação.
C Não.

12. CONSIDERANDO TODAS AS ATIVIDADES QUE VOCÊ EXERCE (DENTRO E FORA DA ÁREA DE EDUCAÇÃO), QUAL É, APROXIMADAMENTE, O SEU SALÁRIO BRUTO? (COM ADICIONAIS, SE HOUVER).

A Até R$ 678,00.
B Entre R$ 679,00 e R$ 1.017,00.
C Entre R$ 1.018,00 e R$ 1.356,00.
D Entre R$ 1.357,00 e R$ 1.695,00.
E Entre R$ 1.696,00 e R$ 2.034,00.
F Entre R$ 2.035,00 e R$ 2.373,00.
G Entre R$ 2.374,00 e R$ 2.712,00.
H Entre R$ 2.713,00 e R$ 3.390,00.
I Entre R$ 3.391,00 e R$ 4.746,00.
J Entre R$ 4.747,00 e R$ 6.780,00.
K R$ 6.781,00 ou mais.

13. HÁ QUANTOS ANOS VOCÊ TRABALHA COMO PROFESSOR?

A Meu primeiro ano.
B 1-2 anos.
C 3-5 anos.
D 6-10 anos.
E 11-15 anos.
F 16-20 anos.
G Mais de 20 anos.

14. HÁ QUANTOS ANOS VOCÊ TRABALHA COMO PROFESSOR NESTA ESCOLA?

A Meu primeiro ano.
B 1-2 anos.
C 3-5 anos.
D 6-10 anos.
E 11-15 anos.
F 16-20 anos.
G Mais de 20 anos.

15. HÁ QUANTOS ANOS VOCÊ MINISTRA AULAS PARA ALUNOS DA SÉRIE/TURMA EM QUE VOCÊ SE ENCONTRA NESTE MOMENTO?

A Meu primeiro ano.
B 1-2 anos.
C 3-5 anos.
D 6-10 anos.
E 11-15 anos.
F 16-20 anos.
G Mais de 20 anos.

16. QUAL É A SUA SITUAÇÃO TRABALHISTA NESTA ESCOLA?

A Estatutário.
B CLT.
C Prestador de serviço por contrato temporário.
D Prestador de serviço sem contrato.
E Outra.

17. NESTA ESCOLA, QUAL É A SUA CARGA HORÁRIA SEMANAL? (Considere a carga horária contratual: horas-aula mais horas para atividades, se houver. Não considere aulas particulares)

A Mais de 40 horas.
B 40 horas.
C De 20 a 39 horas.
D Menos de 20 horas.

18. EM QUANTAS ESCOLAS VOCÊ TRABALHA?

- A Apenas nesta escola.
- B Em 2 escolas.
- C Em 3 escolas.
- D Em 4 ou mais escolas.

19. CONSIDERANDO-SE TODAS AS ESCOLAS EM QUE VOCÊ TRABALHA ATUALMENTE COMO PROFESSOR, QUAL A SUA CARGA HORÁRIA SEMANAL? (CONSIDERE A CARGA HORÁRIA CONTRATUAL: HORAS-AULA MAIS HORAS PARA ATIVIDADES, SE HOUVER. NÃO CONSIDERE AULAS PARTICULARES)

- A Mais de 40 horas.
- B 40 horas.
- C De 20 a 39 horas.
- D Menos de 20 horas.

20. CONSIDERANDO-SE TODAS AS ESCOLAS EM QUE VOCÊ TRABALHA ATUALMENTE COMO PROFESSOR, QUANTAS HORAS SEMANAIS SÃO DEDICADAS ÀS ATIVIDADES EXTRACLASSE (FORMAÇÃO E ESTUDO, PLANEJAMENTO, PRODUÇÃO DE RECURSOS DIDÁTICOS ETC.)?

- A Nenhuma.
- B Menos de 1/3 da carga horária.
- C 1/3 da carga horária.
- D Mais de 1/3 da carga horária.

DESENVOLVIMENTO PROFISSIONAL - Nesta parte, "Desenvolvimento Profissional" é definido como atividades que têm por objetivo desenvolver habilidades, conhecimento, experiência e outras características do professor.

Comando das Questões 21 a 24

DURANTE OS ÚLTIMOS DOIS ANOS, VOCÊ PARTICIPOU DE QUALQUER UM DOS SEGUINTES TIPOS DE ATIVIDADES DE DESENVOLVIMENTO PROFISSIONAL, E QUAL FOI O IMPACTO DESSA ATIVIDADE EM SUA PRÁTICA COMO PROFESSOR?

21. CURSOS/OFICINAS SOBRE METODOLOGIAS DE ENSINO NA SUA ÁREA DE ATUAÇÃO.

- A Não participei.
- B Sim, e não houve impacto.
- C Sim, e houve um pequeno impacto.
- D Sim, e houve um impacto moderado.
- E Sim, e houve um grande impacto.

22. CURSOS/OFICINAS SOBRE OUTROS TÓPICOS EM EDUCAÇÃO.

- A Não participei.
- B Sim, e não houve impacto.
- C Sim, e houve um pequeno impacto.
- D Sim, e houve um impacto moderado.
- E Sim, e houve um grande impacto.

23. CURSO DE ESPECIALIZAÇÃO (MÍNIMO DE 360 HORAS) OU APERFEIÇOAMENTO (MÍNIMO DE 180 HORAS) SOBRE METODOLOGIAS DE ENSINO NA SUA ÁREA DE ATUAÇÃO.

- A Não participei.
- B Sim, e não houve impacto.
- C Sim, e houve um pequeno impacto.
- D Sim, e houve um impacto moderado.
- E Sim, e houve um grande impacto.

24. CURSO DE ESPECIALIZAÇÃO (MÍNIMO DE 360 HORAS) OU APERFEIÇOAMENTO (MÍNIMO DE 180 HORAS) SOBRE OUTROS TÓPICOS EM EDUCAÇÃO.

- A Não participei.
- B Sim, e não houve impacto.
- C Sim, e houve um pequeno impacto.
- D Sim, e houve um impacto moderado.
- E Sim, e houve um grande impacto.

25. DAS ATIVIDADES DE DESENVOLVIMENTO PROFISSIONAL DE QUE VOCÊ PARTICIPOU NOS ÚLTIMOS DOIS ANOS, QUANTAS VOCÊ, PESSOALMENTE, TEVE QUE PAGAR PARA PARTICIPAR?

- A Nenhuma.
- B Algumas.
- C Todas.

Comando das Questões 26 a 32

CONSIDERANDO OS TEMAS A SEGUIR, INDIQUE POR FAVOR SUA NECESSIDADE DE APERFEIÇOAMENTO PROFISSIONAL.

	Não há necessidade.	Baixo nível de necessidade.	Nível moderado de necessidade.	Alto nível de necessidade.
26. Parâmetros ou Diretrizes curriculares em sua área de atuação.	A	B	C	D
27. Conteúdos específicos da minha disciplina principal de atuação.	A	B	C	D
28. Práticas de Ensino na minha disciplina principal de atuação.	A	B	C	D
29. Gestão e organização das atividades em sala de aula.	A	B	C	D
30. Metodologias de avaliação dos alunos.	A	B	C	D
31. Uso pedagógico das Tecnologias de Informação e Comunicação.	A	B	C	D
32. Formação específica para trabalhar com estudantes com deficiência ou necessidades especiais.	A	B	C	D

33. NOS ÚLTIMOS DOIS ANOS, VOCÊ GOSTARIA DE TER PARTICIPADO DE MAIS ATIVIDADES DE DESENVOLVIMENTO PROFISSIONAL DO QUE VOCÊ PARTICIPOU?

- A Não.
- B Sim.

Comando das Questões 34 a 37 — **SE VOCÊ GOSTARIA DE TER PARTICIPADO DE MAIS ATIVIDADES DE DESENVOLVIMENTO PROFISSIONAL, OS SEGUINTES MOTIVOS IMPEDIRAM SUA PARTICIPAÇÃO?**

	Não gostaria de ter participado.	Não.	Sim.
34. O desenvolvimento profissional era muito caro/eu não podia pagar.	A	B	C
35. Houve conflito com o meu horário de trabalho.	A	B	C
36. Não tinha disponibilidade de tempo.	A	B	C
37. Não houve oferta em minha área de interesse.	A	B	C

HÁBITOS DE LEITURA/CULTURAIS - Gostaríamos de saber quais são as atividades que você costuma realizar em seu tempo livre.

Comando das Questões 38 a 43 — **EM SEU TEMPO LIVRE, VOCÊ COSTUMA:**

	Nunca ou quase nunca.	De vez em quando.	Sempre ou quase sempre.
38. Ler jornais e revistas em geral.	A	B	C
39. Ler livros.	A	B	C
40. Ler sites na internet.	A	B	C
41. Frequentar bibliotecas.	A	B	C
42. Ir ao cinema.	A	B	C
43. Ir a algum tipo de espetáculo ou exposição (teatro, museu, dança, música).	A	B	C

UTILIZAÇÃO DE RECURSOS AUDIOVISUAIS E DIDÁTICOS - Nesta seção, objetiva-se averiguar o uso de recursos para FINS PEDAGÓGICOS pelo professor.

Comando das Questões 44 a 50 — **GOSTARÍAMOS DE SABER QUAIS OS RECURSOS QUE VOCÊ UTILIZA PARA FINS PEDAGÓGICOS, NESTA TURMA:**

	Não utilizo porque a escola não tem.	Nunca.	De vez em quando.	Sempre ou quase sempre.
44. Jornais e revistas informativas.	A	B	C	D
45. Livros de literatura em geral.	A	B	C	D
46. Projetor (datashow, projetor de transparências).	A	B	C	D
47. Filmes, desenhos animados ou documentários.	A	B	C	D
48. Máquina copiadora (xerox).	A	B	C	D
49. Programas/aplicativos pedagógicos de computador.	A	B	C	D
50. Internet.	A	B	C	D

INTEGRAÇÃO DA EQUIPE ESCOLAR - Gostaríamos de lhe perguntar sobre a integração da equipe escolar NESTA ESCOLA.

51. NESTE ANO E NESTA ESCOLA, COMO SE DEU A ELABORAÇÃO DO PROJETO PEDAGÓGICO ?

- A Não sei como foi desenvolvido.
- B Não existe Projeto Pedagógico.
- C Utilizando-se um modelo pronto, sem discussão com a equipe escolar.
- D Utilizando-se um modelo pronto, mas com discussão com a equipe escolar.
- E Utilizando-se um modelo pronto, porém com adaptações, sem discussão com a equipe escolar.
- F Utilizando-se um modelo pronto, porém com adaptações e com discussão com a equipe escolar.
- G Elaborou-se um modelo próprio, mas não houve discussão com a equipe escolar.
- H Elaborou-se um modelo próprio e houve discussão com a equipe escolar.

52. O CONSELHO DE CLASSE É UM ÓRGÃO FORMADO POR TODOS OS PROFESSORES QUE LECIONAM EM CADA TURMA/SÉRIE. NESTE ANO E NESTA ESCOLA, QUANTAS VEZES SE REUNIU O CONSELHO DE CLASSE?

- A Não existe Conselho de Classe nesta escola.
- B Nenhuma vez.
- C Uma vez.
- D Duas vezes.
- E Três vezes ou mais.

Comando das Questões 53 a 57 — **NESTA ESCOLA, COM QUE FREQUÊNCIA VOCÊ FEZ O SEGUINTE:**

	Nunca.	Uma vez por ano.	De 3 a 4 vezes ao ano.	Mensalmente.	Semanalmente.
53. Participou do planejamento do currículo escolar ou parte dele.	A	B	C	D	E
54. Trocou materiais didáticos com seus colegas.	A	B	C	D	E
55. Participou de reuniões com colegas que trabalham com a mesma série (ano) para a(o) qual leciona.	A	B	C	D	E
56. Participou em discussões sobre o desenvolvimento da aprendizagem de determinados alunos.	A	B	C	D	E
57. Envolveu-se em atividades conjuntas com diferentes professores (por exemplo, projetos interdisciplinares).	A	B	C	D	E

Comando das Questões 58 a 69 — **NESTA ESCOLA E NESTE ANO, INDIQUE A FREQUÊNCIA COM QUE:**

	Nunca.	Algumas vezes.	Frequentemente.	Sempre ou quase sempre.
58. O(A) diretor(a) discute metas educacionais com os professores nas reuniões.	A	B	C	D
59. O(A) diretor(a) e os professores procuram assegurar que as questões de qualidade de ensino sejam uma responsabilidade coletiva.	A	B	C	D
60. O(A) diretor(a) informa os professores sobre as possibilidades de aperfeiçoamento profissional.	A	B	C	D
61. O(A) diretor(a) dá atenção especial a aspectos relacionados com a aprendizagem dos alunos.	A	B	C	D
62. O(A) diretor(a) dá atenção especial a aspectos relacionados com as normas administrativas.	A	B	C	D
63. O(A) diretor(a) dá atenção especial a aspectos relacionados com a manutenção da escola.	A	B	C	D
64. O(A) diretor(a) me anima e me motiva para o trabalho.	A	B	C	D
65. O(A) diretor(a) estimula atividades inovadoras.	A	B	C	D
66. Sinto-me respeitado pelo(a) diretor(a).	A	B	C	D
67. Tenho confiança no(a) diretor(a) como profissional.	A	B	C	D
68. Participo das decisões relacionadas com meu trabalho.	A	B	C	D
69. A equipe de professores leva em consideração minhas ideias.	A	B	C	D

PROBLEMAS DE APRENDIZAGEM - Gostaríamos de conhecer sua percepção sobre as causas dos possíveis problemas de aprendizagem nas turmas em que você leciona NESTA ESCOLA.

Comando das Questões 70 a 82 — **NA SUA PERCEPÇÃO, OS POSSÍVEIS PROBLEMAS DE APRENDIZAGEM DOS ALUNOS DAS SÉRIE(S) OU ANO(S) AVALIADO(S) OCORREM, NESTA ESCOLA, DEVIDO À/AO(S):**

	Sim.	Não.
70. Carência de infraestrutura física.	A	B
71. Carência ou ineficiência da supervisão, coordenação e orientação pedagógica.	A	B
72. Conteúdos curriculares inadequados às necessidades dos alunos.	A	B
73. Não cumprimento dos conteúdos curriculares ao longo da trajetória escolar do aluno.	A	B
74. Sobrecarga de trabalho dos professores, dificultando o planejamento e o preparo das aulas.	A	B
75. Insatisfação e desestímulo do professor com a carreira docente.	A	B
76. Meio social em que o aluno vive.	A	B
77. Nível cultural dos pais dos alunos.	A	B
78. Falta de assistência e acompanhamento dos pais na vida escolar do aluno.	A	B
79. Baixa autoestima dos alunos.	A	B
80. Desinteresse e falta de esforço do aluno.	A	B
81. Indisciplina dos alunos em sala de aula.	A	B
82. Alto índice de faltas por parte dos alunos.	A	B

VIOLÊNCIA NA ESCOLA - Gostaríamos de lhe perguntar sobre ocorrências de violência nesta escola.

Comando das Questões 83 a 92

SOBRE OS FATOS LISTADOS ABAIXO, DIGA SE ELES ACONTECERAM OU NÃO NESTE ANO, NESTA ESCOLA:

	Sim.	Não.
83. Agressão verbal ou física de alunos a professores ou a funcionários da escola.	A	B
84. Agressão verbal ou física de alunos a outros alunos da escola.	A	B
85. Você foi vítima de atentado à vida.	A	B
86. Você foi ameaçado por algum aluno.	A	B
87. Você foi vítima de furto (sem uso de violência).	A	B
88. Você foi vítima de roubo (com uso de violência).	A	B
89. Alunos frequentaram as suas aulas sob efeito de bebida alcoólica.	A	B
90. Alunos frequentaram as suas aulas sob efeito de drogas ilícitas.	A	B
91. Alunos frequentaram as suas aulas portando arma branca (facas, canivetes etc.).	A	B
92. Alunos frequentaram as suas aulas portando arma de fogo.	A	B

EXPECTATIVAS - Nesta seção gostaríamos de saber sua expectativa quanto a trajetória educacional futura de seus alunos.

	Poucos alunos.	Um pouco menos da metade dos alunos.	Um pouco mais da metade dos alunos.	Quase todos os alunos.
93. (SOMENTE PARA PROFESSORES DA 4.ª série/5.º ano) Na sua opinião, quantos dos alunos desta turma você acha que concluirão a 4.ª série/5.º ano neste ano?	A	B	C	D
94. (SOMENTE PARA PROFESSORES DA 4.ª série/5.º ano e 8.ª série/9.º ano) Na sua opinião, quantos dos alunos desta turma você acha que concluirão o ensino fundamental?	A	B	C	D
95. (PARA TODOS OS PROFESSORES) Quantos dos alunos desta turma você acha que concluirão o ensino médio?	A	B	C	D
96. (PARA TODOS OS PROFESSORES) Quantos dos alunos desta turma você acha que entrarão na universidade?	A	B	C	D

LIVRO DIDÁTICO - Nesta seção gostaríamos de lhe perguntar sobre o uso do livro didático.

97. PARA A DISCIPLINA QUE VOCÊ MINISTRA NESTE ANO, VOCÊ PARTICIPOU DA ESCOLHA DOS LIVROS DIDÁTICOS PARA UTILIZAÇÃO NESTA TURMA?

A Sim.
B Não.

98. O LIVRO DIDÁTICO ESCOLHIDO FOI O RECEBIDO?

A Sim.
B Não.
C Não sei.

99. OS ALUNOS DESTA TURMA TÊM LIVROS DIDÁTICOS?

A Não, esta turma não recebeu o livro didático.
B Sim, menos da metade da turma tem.
C Sim, metade da turma tem.
D Sim, a maioria tem.
E Sim, todos têm.

100. OS ALUNOS DESTA TURMA RECEBERAM O LIVRO DIDÁTICO NO INÍCIO DO ANO LETIVO?

A Sim.
B Não.
C Não sei.

101. COMO VOCÊ AVALIA A QUALIDADE DOS LIVROS DIDÁTICOS QUE VOCÊ UTILIZA NESTA TURMA, NESTE ANO?

A Não utilizo livros didáticos.
B Ruim.
C Razoável.
D Boa.
E Ótima.

USO DO TEMPO - Nesta seção, gostaríamos de lhe perguntar sobre a forma como utiliza o tempo em sala de aula.

Comando das Questões 102 a 104

PARA ESTA TURMA, QUAL O PERCENTUAL DO TEMPO DE AULA QUE VOCÊ USUALMENTE GASTOU REALIZANDO CADA UMA DAS SEGUINTES ATIVIDADES:

102. REALIZANDO TAREFAS ADMINISTRATIVAS (EX.: FAZENDO A CHAMADA, PREENCHENDO FORMULÁRIOS ETC.)

A Menos de 10%.
B De 10% a menos 20%.
C De 20% a menos de 40%.
D De 40% a menos de 60%.
E De 60% a menos de 80%.
F 80% ou mais.

103. MANTENDO A ORDEM/DISCIPLINA NA SALA DE AULA.

A Menos de 10%.
B De 10% a menos 20%.
C De 20% a menos de 40%.
D De 40% a menos de 60%.
E De 60% a menos de 80%.
F 80% ou mais.

104. REALIZANDO ATIVIDADES DE ENSINO E APRENDIZAGEM.

A Menos de 10%.
B De 10% a menos 20%.
C De 20% a menos de 40%.
D De 40% a menos de 60%.
E De 60% a menos de 80%.
F 80% ou mais.

PRÁTICAS PEDAGÓGICAS - Nessa seção gostaríamos de lhe perguntar sobre as estratégias pedagógicas que você utiliza com os alunos DESTA TURMA.

105. NESTA TURMA, QUAL DISCIPLINA VOCÊ LECIONA?

A Língua Portuguesa.
B Matemática.
C Mais de uma disciplina.

106. QUANTO DO CONTEÚDO PREVISTO VOCÊ CONSEGUIU DESENVOLVER COM OS ALUNOS DESTA TURMA NESTE ANO?

A Menos de 20%.
B De 20% a menos de 40%.
C De 40% a menos de 60%.
D De 60% a menos de 80%.
E 80% ou mais.

BLOCO GERAL - Práticas pedagógicas dos Professores.

Comando das Questões 107 a 113

INDIQUE A FREQUÊNCIA COM QUE VOCÊ DESENVOLVE AS SEGUINTES PRÁTICAS PEDAGÓGICAS NESTA TURMA:

	Nunca.	Uma vez por ano.	De 3 a 4 vezes ao ano.	Mensalmente.	Semanalmente.	Diariamente.
107. Propor dever de casa.	A	B	C	D	E	F
108. Corrigir com os alunos o dever de casa.	A	B	C	D	E	F
109. Desenvolver atividades em grupo, em sala de aula, para que os alunos busquem soluções de problemas.	A	B	C	D	E	F
110. Desenvolver projetos temáticos com o objetivo de aprimorar as habilidades de trabalho em equipe.	A	B	C	D	E	F
111. Solicitar que os alunos copiem textos e atividades do livro didático ou do quadro negro (lousa).	A	B	C	D	E	F
112. Estimular os alunos a expressarem suas opiniões e a desenvolverem argumentos a partir de temas diversos.	A	B	C	D	E	F
113. Propor situações de aprendizagem que sejam familiares ou de interesse dos alunos.	A	B	C	D	E	F

Se você é professor de LÍNGUA PORTUGUESA, responda às questões de 114 a 119. Se você é professor de MATEMÁTICA, passe às questões de 120 a 125. Se você é professor das DUAS DISCIPLINAS, responda às questões de 114 a 125.

BLOCO ESPECÍFICO - PRÁTICAS PEDAGÓGICAS DOS PROFESSORES DE LÍNGUA PORTUGUESA.

Comando das Questões 114 a 119

INDIQUE A FREQUÊNCIA COM QUE VOCÊ DESENVOLVE AS SEGUINTES PRÁTICAS PEDAGÓGICAS NESTA TURMA:

	Nunca.	Uma vez por ano.	De 3 a 4 vezes ao ano.	Mensalmente.	Semanalmente.	Diariamente.
114. Promover discussões a partir de textos de jornais ou revistas.	A	B	C	D	E	F
115. Propor atividades gramaticais relacionadas aos textos de jornais ou revistas.	A	B	C	D	E	F
116. Promover a leitura e discussão de contos, crônicas, poesias ou romances.	A	B	C	D	E	F
117. Utilizar contos, crônicas, poesias ou romances para exercitar aspectos da gramática.	A	B	C	D	E	F
118. Utilizar revistas em quadrinhos como instrumento de aprendizado.	A	B	C	D	E	F
119. Fixar os nomes de conceitos gramaticais e linguísticos.	A	B	C	D	E	F

BLOCO ESPECÍFICO - PRÁTICAS PEDAGÓGICAS DOS PROFESSORES DE MATEMÁTICA.

Comando das Questões 120 a 125

INDIQUE A FREQUÊNCIA COM A QUE VOCÊ DESENVOLVE AS SEGUINTES PRÁTICAS PEDAGÓGICAS NESTA TURMA:

	Nunca.	Uma vez por ano.	De 3 a 4 vezes ao ano.	Mensalmente.	Semanalmente.	Diariamente.
120. Fazer exercícios para fixar procedimentos e regras.	A	B	C	D	E	F
121. Discutir se os resultados numéricos obtidos na solução de um problema são adequados à situação apresentada.	A	B	C	D	E	F
122. Discutir diferentes modos para resolver problemas e cálculos.	A	B	C	D	E	F
123. Lidar com temas que aparecem em jornais e/ou revistas, discutindo a relação dos temas com a matemática.	A	B	C	D	E	F
124. Fornecer esquemas/regras que permitem obter as respostas certas dos cálculos e problemas.	A	B	C	D	E	F
125. Experimentar diferentes ações (coletar informações, recortar, explorar, manipular etc.) para resolver problemas.	A	B	C	D	E	F

Senhor(a) Diretor(a),

Com o lançamento do Plano de Desenvolvimento da Educação (PDE), em 2007, as transferências voluntárias e assistência técnica do MEC aos municípios, estados e Distrito Federal estão vinculadas à adesão ao Compromisso Todos pela Educação e à elaboração do Plano de Ações Articuladas (PAR) — instrumentos que são fundamentais para a melhoria do **Indicador de Desenvolvimento da Educação Básica (IDEB)**.

O Ministério da Educação instituiu o IDEB, calculado com base em dois pilares: a) as informações sobre rendimento escolar do Censo Escolar da Educação Básica (aprovação, reprovação e abandono); e b) as informações sobre o desempenho dos estudantes resultantes do Sistema Nacional de Avaliação da Educação Básica (SAEB). Reinstituído por Portaria Ministerial, em 2005, o SAEB passou a ser composto por dois processos: a Avaliação Nacional da Educação Básica (ANEB) e a Avaliação Nacional do Rendimento Escolar (ANRESC) – também conhecida como Prova Brasil. Ambas têm como objetivo principal oferecer subsídios para formulação, reformulação e monitoramento de políticas públicas de educação no Brasil.

Nesse Sistema, busca-se identificar os níveis de qualidade da educação brasileira por meio da avaliação do desempenho dos alunos em momentos conclusivos de diversas etapas de seu percurso escolar, ao mesmo tempo em que se contextualiza, por meio de estratégias que incluem a aplicação de questionários, as condições em que o ensino acontece.

O presente questionário, parte integrante dos processos avaliativos, tem como objetivo coletar dados acerca do estilo gerencial e perfil socioeconômico e cultural dos diretores das escolas em que a avaliação está sendo aplicada. Para cada aspecto avaliado, preencha, **na FOLHA DE RESPOSTAS,** o campo correspondente à resposta que você considera mais adequada. Utilize caneta esferográfica de tinta azul ou preta.

A sua colaboração, ao preencher este questionário, será de grande valia para o êxito da avaliação e para o aprimoramento da educação brasileira. Esclarecemos que não existe identificação do respondente, interessando ao MEC apenas as informações prestadas.

1. SEXO

(A) masculino.
(B) feminino.

2. IDADE

(A) Até 24 anos.
(B) De 25 a 29 anos.
(C) De 30 a 39 anos.
(D) De 40 a 49 anos.
(E) De 50 a 54 anos.
(F) 55 anos ou mais.

3. COMO VOCÊ SE CONSIDERA?

(A) Branco(a).
(B) Pardo(a).
(C) Preto(a).
(D) Amarelo(a).
(E) Indígena.

4. DAS OPÇÕES ABAIXO, ASSINALE A QUE MELHOR DESCREVE O SEU NÍVEL MÁXIMO DE ESCOLARIDADE ATÉ A GRADUAÇÃO.

(A) Menos que o Ensino Médio (antigo 2.º grau).
(B) Ensino Médio – Magistério (antigo 2.º grau).
(C) Ensino Médio – Outros (antigo 2.º grau).
(D) Ensino Superior – Pedagogia.
(E) Ensino Superior – outras Licenciaturas
(F) Ensino Superior – Escola Normal Superior.
(G) Ensino Superior – Outros.

5. HÁ QUANTOS ANOS VOCÊ OBTEVE O NÍVEL DE ESCOLARIDADE ASSINALADO ANTERIORMENTE?

(A) Há 2 anos ou menos.
(B) De 3 a 7 anos.
(C) De 8 a 14 anos.
(D) De 15 a 20 anos.
(E) Há mais de 20 anos.

6. EM QUE TIPO DE INSTITUIÇÃO VOCÊ FEZ O CURSO SUPERIOR? SE VOCÊ ESTUDOU EM MAIS DE UMA INSTITUIÇÃO, ASSINALE AQUELA EM QUE OBTEVE O SEU TÍTULO PROFISSIONAL.

(A) Pública federal.
(B) Pública estadual.
(C) Pública municipal.
(D) Privada.
(E) Não se aplica.

7. QUAL ERA A NATUREZA DESSA INSTITUIÇÃO?

(A) Faculdade isolada.
(B) Centro Universitário.
(C) Universidade.
(D) Não se aplica.

8. DE QUE FORMA VOCÊ REALIZOU O CURSO SUPERIOR?

(A) Presencial.
(B) Semi-presencial.
(C) A distância.
(D) Não se aplica.

9. INDIQUE A MODALIDADE DO CURSO DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

(A) Atualização (mínimo de 180 horas).
(B) Especialização (mínimo de 360 horas).
(C) Mestrado.
(D) Doutorado.
(E) Não fiz ou ainda não completei curso de pós-graduação.

10. INDIQUE QUAL A ÁREA TEMÁTICA DO CURSO DE PÓS-GRADUAÇAO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

(A) Educação, enfatizando Gestão e Administração Escolar.
(B) Educação, enfatizando a área pedagógica.
(C) Educação – outras ênfases.
(D) Outras áreas que não a Educação.
(E) Não se aplica.

11. VOCÊ PARTICIPOU DE ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO ETC.) NOS ÚLTIMOS DOIS ANOS?

(A) Sim.
(B) Não. (**Passe para a questão 14**)

12. QUAL A CARGA HORÁRIA DA ATIVIDADE MAIS RELEVANTE DA QUAL VOCÊ PARTICIPOU?

(A) Menos de 20 horas.
(B) De 21 a 40 horas.
(C) De 41 a 80 horas.
(D) Mais de 80 horas.

13. VOCÊ UTILIZA OS CONHECIMENTOS ADQUIRIDOS NAS ATIVIDADES DE FORMAÇÃO CONTINUADA DE QUE VOCÊ PARTICIPOU?

(A) Quase sempre.
(B) Eventualmente.
(C) Quase nunca.
(D) Nunca.

14. QUAL O SEU SALÁRIO BRUTO (COM ADICIONAIS, SE HOUVER) COMO DIRETOR(A)? (Soma de tudo o que você ganha como Diretor(a))

(A) Até R$ 380,00.
(B) De R$ 381,00 a R$ 500,00.
(C) De R$ 501,00 a R$ 700,00.
(D) De R$ 701,00 a R$ 900,00.
(E) De R$ 901,00 a R$ 1.100,00.
(F) De R$ 1.101,00 a R$ 1.300,00.
(G) De R$ 1.301,00 a R$ 1.500,00.
(H) De R$ 1.501,00 a R$ 1.700,00.
(I) De R$ 1.701,00 a R$ 1.900,00.
(J) De R$ 1.901,00 a R$ 2.300,00.
(L) De R$ 2.301,00 a R$ 2.700,00.
(M) De R$ 2.701,00 a R$ 3.100,00.
(N) Mais de R$ 3.100,00.

15. QUAL A SUA RENDA FAMILIAR BRUTA?

(A) Até R$ 380,00.
(B) De R$ 381,00 a R$ 500,00.
(C) De R$ 501,00 a R$ 700,00.
(D) De R$ 701,00 a R$ 900,00.
(E) De R$ 901,00 a R$ 1.100,00.
(F) De R$ 1.101,00 a R$ 1.300,00.
(G) De R$ 1.301,00 a R$ 1.500,00.
(H) De R$ 1.501,00 a R$ 1.700,00.
(I) De R$ 1.701,00 a R$ 1.900,00.
(J) De R$ 1.901,00 a R$ 2.300,00.
(L) De R$ 2.301,00 a R$ 2.700,00.
(M) De R$ 2.701,00 a R$ 3.100,00.
(N) Mais de R$ 3.100,00.

16. ALÉM DA DIREÇÃO DESTA ESCOLA, VOCÊ EXERCE OUTRA ATIVIDADE QUE CONTRIBUI PARA SUA RENDA PESSOAL?

(A) Sim, na área de Educação.
(B) Sim, fora da área de Educação.
(C) Não.

17. HÁ QUANTOS ANOS VOCÊ TRABALHA EM EDUCAÇÃO?

(A) Há menos de 2 anos.
(B) De 2 a 4 anos.
(C) De 5 a 10 anos.
(D) De 11 a 15 anos.
(E) Há mais de 15 anos.

18. HÁ QUANTOS ANOS VOCÊ EXERCE FUNÇÕES DE DIREÇÃO?

(A) Há menos de 2 anos.
(B) De 2 a 4 anos.
(C) De 5 a 10 anos.
(D) De 11 a 15 anos.
(E) Há mais de 15 anos.

19. HÁ QUANTOS ANOS VOCÊ É DIRETOR(A) DESTA ESCOLA?

(A) Há menos de 2 anos.
(B) De 2 a 4 anos.
(C) De 5 a 10 anos.
(D) De 11 a 15 anos.
(E) Há mais de 15 anos.

20. QUAL É A SUA CARGA HORÁRIA DE TRABALHO NESTA ESCOLA?

(A) Até 20 horas semanais.
(B) Até 30 horas semanais.
(C) Até 40 horas semanais.
(D) Mais de 40 horas semanais.

21. VOCÊ ASSUMIU A DIREÇÃO DESTA ESCOLA POR

(A) seleção.
(B) eleição apenas.
(C) seleção e eleição.
(D) indicação de técnicos.
(E) indicação de políticos.
(F) outras indicações.
(G) outra forma.

22. VOCÊ PROMOVEU ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO ETC.) NESTA ESCOLA?

(A) Sim.
(B) Não. (**Passe para a questão 24**)

23. QUAL FOI A PROPORÇÃO DE DOCENTES DA SUA ESCOLA QUE PARTICIPOU DAS ATIVIDADES DE FORMAÇÃO CONTINUADA PROMOVIDAS POR VOCÊ NOS ÚLTIMOS DOIS ANOS?

(A) Menos de 10%.
(B) Entre 11% e 30%.
(C) Entre 31% e 50%.
(D) Mais de 51%.
(E) Não sei.

24. CONSELHO DE ESCOLA É UM COLEGIADO CONSTITUÍDO POR REPRESENTANTES DA ESCOLA E DA COMUNIDADE QUE TEM COMO OBJETIVO ACOMPANHAR AS ATIVIDADES ESCOLARES. NESTE ANO, QUANTAS VEZES O CONSELHO DESTA ESCOLA SE REUNIU?

(A) Uma vez.
(B) Duas vezes.
(C) Três vezes ou mais.
(D) Nenhuma vez.
(E) Não existe Conselho de Escola**.** (**Passe para a questão 29**)

O CONSELHO DE ESCOLA É COMPOSTO POR
(Marque SIM ou NÃO em cada linha)

Representantes	Sim	Não
25. professores.	(A)	(B)
26. alunos.	(A)	(B)
27. funcionários.	(A)	(B)
28. pais.	(A)	(B)

29. CONSELHO DE CLASSE É UM ÓRGÃO FORMADO POR TODOS OS PROFESSORES QUE LECIONAM EM CADA TURMA/SÉRIE. NESTE ANO, QUANTAS VEZES SE REUNIRAM OS CONSELHOS DE CLASSE DESTA ESCOLA?
(A) Uma vez.
(B) Duas vezes.
(C) Três vezes ou mais.
(D) Nenhuma vez.
(E) Não existe Conselho de Classe.

30. QUANTO AO PROJETO PEDAGÓGICO DESTA ESCOLA, (Marque apenas UMA alternativa.)
(A) foi adotado o modelo encaminhado pela Secretaria da Educação.
(B) foi elaborado por mim.
(C) depois de eu ter elaborado uma proposta do projeto, apresentei-a aos professores para sugestões e só depois escrevi a versão final.
(D) os professores elaboraram uma proposta e, com base nela, escrevi a versão final.
(E) uma equipe de professores e eu elaboramos o projeto.
(F) foi elaborado de outra maneira.
(G) não sei como foi desenvolvido.
(H) não existe Projeto Pedagógico.

31. QUAL É O CRITÉRIO PARA A ADMISSÃO DE ALUNOS NESTA ESCOLA? (Marque apenas UMA alternativa.)
(A) Prova de seleção.
(B) Sorteio.
(C) Local de moradia.
(D) Prioridade por ordem de chegada.
(E) Outro critério.
(F) Não existe critério pré-estabelecido.

32. NO INÍCIO DESTE ANO LETIVO, QUAL DAS OPÇÕES ABAIXO MELHOR CARACTERIZA A PROCURA POR VAGAS NESTA ESCOLA? (Marque apenas UMA alternativa.)
(A) Após o processo de matrícula, a escola ainda tinha vagas disponíveis.
(B) A procura por vaga na escola preencheu as vagas oferecidas.
(C) A procura por vaga na escola foi um pouco maior que as vagas oferecidas.
(D) A procura por vaga na escola superou em muito o número de vagas oferecidas.

33. QUAL O CRITÉRIO UTILIZADO PARA FORMAÇÃO DAS TURMAS NESTA ESCOLA? (Marque apenas UMA alternativa.)
(A) Homogeneidade quanto à idade (alunos com a mesma idade).
(B) Homogeneidade quanto ao rendimento escolar (alunos com similar rendimento).
(C) Heterogeneidade quanto à idade (alunos com idades diferentes).
(D) Heterogeneidade quanto ao rendimento escolar (alunos com nível de rendimento diferente).
(E) Não houve critério.

34. NESTE ANO, QUAL FOI O CRITÉRIO MAIS IMPORTANTE PARA A ATRIBUIÇÃO DAS TURMAS DE 1.ª A 4.ª SÉRIES DO ENSINO FUNDAMENTAL AOS PROFESSORES? (Marque apenas UMA alternativa.)
(A) Esta escola não oferece 1.ª a 4.ª séries do Ensino Fundamental.
(B) Preferência dos professores.
(C) Professores experientes com turmas de aprendizagem mais rápida.
(D) Professores experientes com turmas de aprendizagem mais lenta.
(E) Manutenção do professor com a mesma turma.
(F) Revezamento dos professores entre as séries.
(G) Sorteio das turmas entre os professores.
(H) Outro critério.
(I) Não houve critério preestabelecido.

35. QUAL É O PERCENTUAL DE PROFESSORES COM VÍNCULO ESTÁVEL NESTA ESCOLA?
(A) Menor ou igual a 25%.
(B) De 26% a 50%.
(C) De 51% a 75%.
(D) De 76% a 90%.
(E) De 91% a 100%.

36. NESTA ESCOLA, HÁ ALGUM PROGRAMA DE REDUÇÃO DAS TAXAS DE ABANDONO?
(A) Sim, e o programa está sendo aplicado.
(B) Sim, mas ainda não foi implementado.
(C) Não criamos ainda o programa, embora exista o problema.
(D) Não, porque na minha escola não há esse tipo de problema.

37. NESTA ESCOLA, HÁ ALGUM PROGRAMA DE REDUÇÃO DAS TAXAS DE REPROVAÇÃO?
(A) Sim, e o programa está sendo aplicado.
(B) Sim, mas ainda não foi implementado.
(C) Não criamos ainda o programa, embora exista o problema.
(D) Não, porque na minha escola não há esse tipo de problema.

PARA EVITAR QUE OS ALUNOS FALTEM ÀS AULAS, (Marque SIM ou NÃO em cada linha.)

	Sim	Não
38. os professores falam com os alunos.	(A)	(B)
39. os pais/responsáveis são avisados por comunicação escrita.	(A)	(B)
40. os pais/responsáveis são chamados à escola para conversar sobre o assunto em reunião de pais.	(A)	(B)
41. os pais/responsáveis são chamados à escola para conversar sobre o assunto individualmente.	(A)	(B)
42. a escola envia alguém à casa do aluno.	(A)	(B)

43. ESTA ESCOLA DESENVOLVE, REGULARMENTE, ALGUM PROGRAMA DE APOIO OU REFORÇO DE APRENDIZAGEM PARA OS ALUNOS (monitoria, aula de reforço etc.)?

(A) Sim.
(B) Não.

AS PERGUNTAS DE 44 A 53 APRESENTAM ALGUNS PROBLEMAS QUE PODEM OCORRER NAS ESCOLAS. RESPONDA SE CADA UM DELES OCORREU OU NÃO NESTE ANO. CASO TENHA OCORRIDO, ASSINALE SE FOI OU NÃO UM PROBLEMA GRAVE, DIFICULTANDO O FUNCIONAMENTO DA ESCOLA. (Marque apenas UMA opção em cada linha.)

Ocorreu na escola	Não.	Sim, mas não foi um problema grave.	Sim e foi um problema grave.
44. insuficiência de recursos financeiros?	(A)	(B)	(C)
45. inexistência de professores para algumas disciplinas ou séries?	(A)	(B)	(C)
46. carência de pessoal administrativo?	(A)	(B)	(C)
47. carência de pessoal de apoio pedagógico (coordenador, supervisor, orientador educacional)?	(A)	(B)	(C)
48. falta de recursos pedagógicos?	(A)	(B)	(C)
49. interrupção das atividades escolares?	(A)	(B)	(C)
50. alto índice de faltas por parte de professores?	(A)	(B)	(C)
51. alto índice de faltas por parte de alunos?	(A)	(B)	(C)
52. rotatividade do corpo docente?	(A)	(B)	(C)
53. problemas disciplinares causados por alunos?	(A)	(B)	(C)

CONSIDERE AS CONDIÇÕES EXISTENTES PARA O EXERCÍCIO DO CARGO DE DIRETOR <u>NESTA ESCOLA</u>. (Marque SIM ou NÃO em cada linha.)

	Sim	Não
54. Há interferências externas em sua gestão?	(A)	(B)
55. Há apoio de instâncias superiores?	(A)	(B)
56. Há troca de informações com diretores de outras escolas?	(A)	(B)
57. Há apoio da comunidade à sua gestão?	(A)	(B)

INDIQUE SE <u>NESTA ESCOLA</u> EXISTEM OU NÃO OS RECURSOS APONTADOS E QUAIS SÃO SUAS CONDIÇÕES DE USO. (Marque apenas UMA opção em cada linha.)

	Bom	Regular	Ruim	Inexistente
58. Computadores para uso dos alunos	(A)	(B)	(C)	(D)
59. Acesso à Internet para uso dos alunos	(A)	(B)	(C)	(D)
60. Computadores para uso dos professores	(A)	(B)	(C)	(D)
61. Acesso à Internet para uso dos professores	(A)	(B)	(C)	(D)
62. Computadores exclusivamente para uso administrativo	(A)	(B)	(C)	(D)
63. Fitas de vídeo ou DVD (educativas)	(A)	(B)	(C)	(D)
64. Fitas de vídeo ou DVD (lazer)	(A)	(B)	(C)	(D)
65. Máquina copiadora	(A)	(B)	(C)	(D)
66. Impressora	(A)	(B)	(C)	(D)
67. Retroprojetor	(A)	(B)	(C)	(D)
68. Projetor de *slides*	(A)	(B)	(C)	(D)
69. Videocassete ou DVD	(A)	(B)	(C)	(D)

	Bom	Regular	Ruim	Inexistente
70. Televisão	(A)	(B)	(C)	(D)
71. Antena parabólica	(A)	(B)	(C)	(D)
72. Linha telefônica	(A)	(B)	(C)	(D)
73. Aparelho de som	(A)	(B)	(C)	(D)
74. Biblioteca	(A)	(B)	(C)	(D)
75. Quadra de esportes	(A)	(B)	(C)	(D)
76. Laboratório	(A)	(B)	(C)	(D)
77. Auditório	(A)	(B)	(C)	(D)
78. Sala para atividades de música	(A)	(B)	(C)	(D)
79. Sala para atividades de artes plásticas	(A)	(B)	(C)	(D)

QUE ATIVIDADES EXTRACURRICULARES SÃO DESENVOLVIDAS REGULARMENTE COM OS ALUNOS NESTA ESCOLA? (Marque SIM ou NÃO em cada linha.)

	Sim	Não
80. Esportivas.	(A)	(B)
81. Artísticas (música, teatro, trabalhos artesanais).	(A)	(B)

82. OS ESPAÇOS DESTA ESCOLA SÃO UTILIZADOS PARA ATIVIDADES COMUNITÁRIAS?

(A) Sim, planejadas apenas pela escola.
(B) Sim, planejadas apenas pela comunidade.
(C) Sim, planejadas conjuntamente (escola e comunidade).
(D) Não.

NESTE ANO, OCORRERAM NESTA ESCOLA (Marque SIM ou NÃO em cada linha.)	Sim	Não
83. eventos da comunidade usando instalações, equipamentos ou recursos da escola.	(A)	(B)
84. eventos de terceiros realizados na escola e abertos para a comunidade (*shows*, teatro, palestras).	(A)	(B)
85. eventos da escola e destinados à comunidade externa (cursos, práticas esportivas, palestras).	(A)	(B)
86. campanhas de solidariedade promovidas pela escola.	(A)	(B)
87. campanhas de solidariedade propostas pela comunidade, envolvendo a escola.	(A)	(B)
88. comunidade colaborando na manutenção de hortas, pomar, jardins.	(A)	(B)
89. comunidade participando em mutirão para limpeza da escola.	(A)	(B)
90. comunidade participando em mutirão para manutenção da estrutura física da escola.	(A)	(B)

QUANTO A APOIO FINANCEIRO, ESTA ESCOLA PARTICIPA DE ALGUM? (Marque apenas UMA opção em cada linha.)

	Sim	Não	Não se aplica.
91. Programa de Financiamento do Governo Federal?	(A)	(B)	(C)
92. Programa de Financiamento do Governo Estadual?	(A)	(B)	(C)
93. Programa de Financiamento do Governo Municipal?	(A)	(B)	(C)

PROGRAMA NACIONAL DO LIVRO DIDÁTICO

94. QUEM ESCOLHEU OS LIVROS DIDÁTICOS UTILIZADOS NESTA ESCOLA? (Escolha apenas UMA alternativa de resposta.)

(A) A equipe de professores da disciplina correspondente.
(B) O coordenador pedagógico, orientador educacional e eu, depois de consultarmos a equipe de professores da disciplina correspondente.
(C) O coordenador pedagógico ou orientador educacional escolheu sozinho.
(D) Eu escolhi sozinho.
(E) Órgãos de gerência externa à escola.
(F) Não sei.

NESTE ANO, OCORRERAM AS SEGUINTES SITUAÇÕES: (Marque SIM ou NÃO em cada linha.)

	Sim	Não
95. Os livros chegaram em tempo hábil para o início das aulas.	(A)	(B)
96. Faltaram livros para os alunos.	(A)	(B)
97. Sobraram livros.	(A)	(B)
98. Os livros escolhidos foram os recebidos.	(A)	(B)

VIOLÊNCIA NAS ESCOLAS

NESTE ANO, ACONTECERAM OS SEGUINTES FATOS NESTA ESCOLA:

	Agente causador Externo (estranho à escola)		Agente causador Interno (da própria escola)	
	Sim	Não	Sim	Não
99. Atentado à vida de professores ou funcionários dentro da escola.	(A)	(B)	(C)	(D)
100. Atentado à vida de alunos dentro da escola.	(A)	(B)	(C)	(D)
101. Furto a professores ou funcionários dentro da escola.	(A)	(B)	(C)	(D)
102. Furto a alunos dentro da escola.	(A)	(B)	(C)	(D)
103. Roubo (com uso de violência) a professores ou funcionários dentro da escola.	(A)	(B)	(C)	(D)
104. Roubo (com uso de violência) a alunos dentro da escola.	(A)	(B)	(C)	(D)
105. Furto de equipamentos e materiais didáticos ou pedagógicos da escola.	(A)	(B)	(C)	(D)
106. Roubo (com uso de violência) de equipamentos e materiais didáticos ou pedagógicos da escola.	(A)	(B)	(C)	(D)
107. Quebra intencional de equipamento.	(A)	(B)	(C)	(D)
108. Pichação de muros ou paredes das dependências externas da escola.	(A)	(B)	(C)	(D)
109. Depredação das dependências externas da escola.	(A)	(B)	(C)	(D)
110. Sujeira nas dependências externas da escola.	(A)	(B)	(C)	(D)
111. Sujeira nas dependências internas da escola.	(A)	(B)	(C)	(D)
112. Pichação de muros ou paredes das dependências internas da escola.	(A)	(B)	(C)	(D)
113. Depredação das dependências internas da escola.	(A)	(B)	(C)	(D)
114. Depredação de banheiros.	(A)	(B)	(C)	(D)
115. Consumo de drogas nas dependências da escola.	(A)	(B)	(C)	(D)
116. Consumo de drogas nas proximidades da escola.	(A)	(B)	(C)	(D)
117. Tráfico de drogas nas dependências da escola.	(A)	(B)	(C)	(D)
118. Tráfico de drogas nas proximidades da escola.	(A)	(B)	(C)	(D)

NESTE ANO, OS SEGUINTES EVENTOS FIZERAM OU NÃO PARTE DO COTIDIANO DESTA ESCOLA:

	Sim	Não
119. Membros da comunidade escolar portando arma de fogo.	(A)	(B)
120. Membros da comunidade escolar portando arma branca (faca, canivete, estilete etc.).	(A)	(B)
121. Ação de gangues nas dependências externas da escola.	(A)	(B)
122. Ação de gangues nas dependências internas da escola.	(A)	(B)

NESTE ANO, HOUVE

	Quem foi o agressor?					
	Aluno (1)		Professor (2)		Funcionário (3)	
	Sim	Não	Sim	Não	Sim	Não
123. agressão verbal a professores.	(A)	(B)	(A)	(B)	(A)	(B)
124. agressão física a professores.	(A)	(B)	(A)	(B)	(A)	(B)
125. agressão verbal a alunos.	(A)	(B)	(A)	(B)	(A)	(B)
126. agressão física a alunos.	(A)	(B)	(A)	(B)	(A)	(B)
127. agressão verbal a funcionários.	(A)	(B)	(A)	(B)	(A)	(B)
128. agressão física a funcionários.	(A)	(B)	(A)	(B)	(A)	(B)

129. VOCÊ CONHECE OS RESULTADOS DO SISTEMA NACIONAL DE AVALIAÇÃO DA EDUCAÇÃO BÁSICA (SAEB)?
(A)Sim.
(B)Não.

130. A SUA ESCOLA PARTICIPOU DA PROVA BRASIL 2005?
(A)Sim.
(B)Não.

Senhor(a) Diretor(a),

O Sistema Nacional de Avaliação da Educação Básica (SAEB) é uma avaliação externa das redes de ensino por meio da qual se busca identificar tanto os níveis de qualidade da educação brasileira (avaliando o desempenho dos alunos em momentos conclusivos de diversas etapas de seu percurso escolar), quanto o contexto em que o ensino acontece (pela coleta de dados socioeconômicos e culturais de alunos, professores, diretores e escolas).

O SAEB é composto por dois processos: a Avaliação Nacional da Educação Básica (ANEB) que tem como objetivo principal oferecer subsídios para a formulação, a reformulação e o monitoramento de políticas públicas voltadas para as redes de ensino; e a Avaliação Nacional do Rendimento Escolar (ANRESC) – conhecida como Prova Brasil, que além de fornecer parte das informações necessárias para a elaboração de políticas, serve como instrumental para o desenvolvimento de ações pedagógicas internas a cada unidade escolar.

Em 2007, as informações sobre o desempenho dos estudantes resultantes do SAEB e os dados de aprovação do Censo Escolar da Educação Básica foram combinados para a composição do **Índice de Desenvolvimento da Educação Básica (IDEB),** no intuito de retratar a realidade e definir padrões de qualidade para o ensino.

Com o lançamento do Plano de Desenvolvimento da Educação (PDE), em 2007, as transferências voluntárias e a assistência técnica do MEC aos municípios, estados e Distrito Federal passaram a ser vinculadas à adesão ao Compromisso Todos pela Educação e à elaboração do Plano de Ações Articuladas (PAR) — instrumentos fundamentais para a melhoria do IDEB de cada escola, dos municípios, dos estados e do Distrito Federal, desempenhando um importante papel na busca da qualidade da educação no país.

Nesse contexto, o presente questionário tem como objetivo coletar dados acerca da formação profissional, práticas gerenciais e do perfil socioeconômico e cultural dos diretores das escolas em que a avaliação está sendo aplicada. Por isso, sua colaboração ao preencher este questionário, será de grande valia para o êxito da avaliação e para o aprimoramento da educação brasileira.

Para responder a cada questão deste questionário, preencha, na **FOLHA DE RESPOSTAS,** o campo correspondente à alternativa de sua escolha. Utilize caneta esferográfica de tinta azul ou preta.

1. SEXO

(A) masculino. (B) feminino.

2. IDADE

(A) Até 24 anos.
(B) De 25 a 29 anos.
(C) De 30 a 39 anos.
(D) De 40 a 49 anos.
(E) De 50 a 54 anos.
(F) 55 anos ou mais.

3. COMO VOCÊ SE CONSIDERA?

(A) Branco(a).
(B) Pardo(a).
(C) Preto(a).
(D) Amarelo(a).
(E) Indígena.

4. DAS OPÇÕES ABAIXO, ASSINALE A QUE MELHOR DESCREVE O SEU NÍVEL MÁXIMO DE ESCOLARIDADE (ATÉ A GRADUAÇÃO).

(A) Menos que o Ensino Médio (antigo 2.º grau).
(B) Ensino Médio – Magistério (antigo 2.º grau).
(C) Ensino Médio – Outros (antigo 2.º grau).
(D) Ensino Superior – Pedagogia.
(E) Ensino Superior – outras Licenciaturas.
(F) Ensino Superior – Escola Normal Superior.
(G) Ensino Superior – Outros.

5. HÁ QUANTOS ANOS VOCÊ OBTEVE O NÍVEL DE ESCOLARIDADE ASSINALADO ANTERIORMENTE?

(A) Há 2 anos ou menos.
(B) De 3 a 7 anos.
(C) De 8 a 14 anos.
(D) De 15 a 20 anos.
(E) Há mais de 20 anos.

6. EM QUE TIPO DE INSTITUIÇÃO VOCÊ FEZ O CURSO SUPERIOR? SE VOCÊ ESTUDOU EM MAIS DE UMA INSTITUIÇÃO, ASSINALE AQUELA EM QUE OBTEVE O SEU TÍTULO PROFISSIONAL.

(A) Pública federal.
(B) Pública estadual.
(C) Pública municipal.
(D) Privada.
(E) Não se aplica.

7. QUAL ERA A NATUREZA DESSA INSTITUIÇÃO?

(A) Faculdade isolada.
(B) Centro Universitário.
(C) Universidade.
(D) Não se aplica.

8. DE QUE FORMA VOCÊ REALIZOU O CURSO SUPERIOR?

(A) Presencial.
(B) Semi-presencial.
(C) A distância.
(D) Não se aplica.

9. INDIQUE A MODALIDADE DO CURSO DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

(A) Atualização (mínimo de 180 horas).
(B) Especialização (mínimo de 360 horas).
(C) Mestrado.
(D) Doutorado.
(E) Não fiz ou ainda não completei curso de pós-graduação.

10. INDIQUE QUAL A ÁREA TEMÁTICA DO CURSO DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

(A) Educação, enfatizando Gestão e Administração Escolar.
(B) Educação, enfatizando a área pedagógica.
(C) Educação – outras ênfases.
(D) Outras áreas que não seja a Educação.
(E) Não se aplica.

11. VOCÊ <u>PARTICIPOU</u> DE ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (<u>ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO</u> ETC.) NOS ÚLTIMOS DOIS ANOS?

(A) Sim.
(B) Não. (**Passe para a questão 14**)

12. QUAL A CARGA HORÁRIA DA ATIVIDADE MAIS RELEVANTE DA QUAL VOCÊ PARTICIPOU?

(A) Menos de 20 horas.
(B) De 21 a 40 horas.
(C) De 41 a 80 horas.
(D) Mais de 80 horas.

13. VOCÊ UTILIZA OS CONHECIMENTOS ADQUIRIDOS NAS ATIVIDADES DE FORMAÇÃO CONTINUADA DE QUE VOCÊ PARTICIPOU?

(A) Quase sempre.
(B) Eventualmente.
(C) Quase nunca.
(D) Nunca.

14. QUAL O SEU SALÁRIO BRUTO (COM ADICIONAIS, SE HOUVER) COMO DIRETOR(A)? (Soma de tudo o que você ganha como Diretor(a))

(A) Até R$ 465,00.
(B) De R$ 466,00 a R$ 698,00.
(C) De R$ 699,00 a R$ 930,00.
(D) De R$ 931,00 a R$ 1.163,00.
(E) De R$ 1.164,00 a R$ 1.395,00.
(F) De R$ 1.396,00 a R$ 1.628,00.
(G) De R$ 1.629,00 a R$ 1.860,00.
(H) De R$ 1.861,00 a R$ 2.325,00.
(I) De R$ 2.326,00 a R$ 3.255,00.
(J) De R$ 3.256,00 a R$ 4.650,00.
(K) Mais de R$ 4.650,00.

15. QUAL A SUA RENDA FAMILIAR BRUTA?

(A) Até R$ 465,00.
(B) De R$ 466,00 a R$ 698,00.
(C) De R$ 699,00 a R$ 930,00.
(D) De R$ 931,00 a R$ 1.163,00.
(E) De R$ 1.164,00 a R$ 1.395,00.
(F) De R$ 1.396,00 a R$ 1.628,00.
(G) De R$ 1.629,00 a R$ 1.860,00.
(H) De R$ 1.861,00 a R$ 2.325,00.
(I) De R$ 2.326,00 a R$ 3.255,00.
(J) De R$ 3.256,00 a R$ 4.650,00.
(K) Mais de R$ 4.650,00.

16. ALÉM DA DIREÇÃO <u>DESTA ESCOLA</u>, VOCÊ EXERCE OUTRA ATIVIDADE QUE CONTRIBUI PARA SUA RENDA PESSOAL?

(A) Sim, na área de Educação.
(B) Sim, fora da área de Educação.
(C) Não.

17. HÁ QUANTOS ANOS VOCÊ TRABALHA EM EDUCAÇÃO?

(A) Há menos de 2 anos.
(B) De 2 a 4 anos.
(C) De 5 a 10 anos.
(D) De 11 a 15 anos.
(E) Há mais de 15 anos.

18. HÁ QUANTOS ANOS VOCÊ EXERCE FUNÇÕES DE DIREÇÃO?

(A) Há menos de 2 anos.
(B) De 2 a 4 anos.
(C) De 5 a 10 anos.
(D) De 11 a 15 anos.
(E) Há mais de 15 anos.

19. HÁ QUANTOS ANOS VOCÊ É DIRETOR(A) DESTA ESCOLA?

(A) Há menos de 2 anos.
(B) De 2 a 4 anos.
(C) De 5 a 10 anos.
(D) De 11 a 15 anos.
(E) Há mais de 15 anos.

20. QUAL É A SUA CARGA HORÁRIA DE TRABALHO NESTA ESCOLA?

(A) Até 20 horas semanais.
(B) Até 30 horas semanais.
(C) Até 40 horas semanais.
(D) Mais de 40 horas semanais.

21. VOCÊ ASSUMIU A DIREÇÃO DESTA ESCOLA POR

(A) seleção.
(B) eleição apenas.
(C) seleção e eleição.
(D) indicação de técnicos.
(E) indicação de políticos.
(F) outras indicações.
(G) outra forma.

22. VOCÊ PROMOVEU ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO ETC.) NESTA ESCOLA?

(A) Sim.
(B) Não. (**Passe para a questão 24**)

23. QUAL FOI A PROPORÇÃO DE DOCENTES DA SUA ESCOLA QUE PARTICIPOU DAS ATIVIDADES DE FORMAÇÃO CONTINUADA PROMOVIDAS POR VOCÊ NOS ÚLTIMOS DOIS ANOS?

(A) Menos de 10%.
(B) Entre 11% e 30%.
(C) Entre 31% e 50%.
(D) Mais de 51%.
(E) Não sei.

24. CONSELHO DE ESCOLA É UM COLEGIADO CONSTITUÍDO POR REPRESENTANTES DA ESCOLA E DA COMUNIDADE QUE TEM COMO OBJETIVO ACOMPANHAR AS ATIVIDADES ESCOLARES. NESTE ANO, QUANTAS VEZES O CONSELHO DESTA ESCOLA SE REUNIU?

(A) Uma vez.
(B) Duas vezes.
(C) Três vezes ou mais.
(D) Nenhuma vez.
(E) Não existe Conselho de Escola**.** (**Passe para a questão 29**)

O CONSELHO DE ESCOLA É COMPOSTO POR
(Marque SIM ou NÃO em cada linha)

Representantes	Sim	Não
25. professores.	(A)	(B)
26. alunos.	(A)	(B)
27. funcionários.	(A)	(B)
28. pais.	(A)	(B)

29. CONSELHO DE CLASSE É UM ÓRGÃO FORMADO POR TODOS OS PROFESSORES QUE LECIONAM EM CADA TURMA/SÉRIE. NESTE ANO, QUANTAS VEZES SE REUNIRAM OS CONSELHOS DE CLASSE DESTA ESCOLA?

(A) Uma vez.
(B) Duas vezes.
(C) Três vezes ou mais.
(D) Nenhuma vez.
(E) Não existe Conselho de Classe.

30. QUANTO AO PROJETO PEDAGÓGICO DESTA ESCOLA, (Marque apenas UMA alternativa.)

(A) foi adotado o modelo encaminhado pela Secretaria da Educação.
(B) foi elaborado por mim.
(C) depois de eu ter elaborado uma proposta do projeto, apresentei-a aos professores para sugestões e só depois escrevi a versão final.
(D) os professores elaboraram uma proposta e, com base nela, escrevi a versão final.
(E) uma equipe de professores e eu elaboramos o projeto.
(F) foi elaborado de outra maneira.
(G) não sei como foi desenvolvido.
(H) não existe Projeto Pedagógico.

31. QUAL É O CRITÉRIO PARA A ADMISSÃO DE ALUNOS NESTA ESCOLA? (Marque apenas UMA alternativa.)

(A) Prova de seleção.
(B) Sorteio.
(C) Local de moradia.
(D) Prioridade por ordem de chegada.
(E) Outro critério.
(F) Não existe critério pré-estabelecido.

32. NESTE ANO LETIVO, COMO FOI A SITUAÇÃO DA OFERTA DE VAGAS NESTA ESCOLA? (Marque apenas UMA alternativa.)

(A) Após o processo de matrícula, a escola ainda tinha vagas disponíveis.
(B) A procura por vaga na escola preencheu todas as vagas oferecidas.
(C) A procura por vaga na escola foi um pouco maior que as vagas oferecidas.
(D) A procura por vaga na escola superou em muito o número de vagas oferecidas.

33. QUAL O CRITÉRIO UTILIZADO PARA FORMAÇÃO DAS TURMAS NESTA ESCOLA? (Marque apenas UMA alternativa.)

(A) Homogeneidade quanto à idade (alunos com a mesma idade).
(B) Homogeneidade quanto ao rendimento escolar (alunos com similar rendimento).
(C) Heterogeneidade quanto à idade (alunos com idades diferentes).
(D) Heterogeneidade quanto ao rendimento escolar (alunos com nível de rendimento diferente).
(E) Não houve critério.

34. NESTE ANO, QUAL FOI O CRITÉRIO MAIS IMPORTANTE PARA A ATRIBUIÇÃO DAS TURMAS DE 1.ª A 4.ª SÉRIES DO ENSINO FUNDAMENTAL AOS PROFESSORES? (Marque apenas UMA alternativa.)

(A) Esta escola não oferece 1.ª a 4.ª séries do Ensino Fundamental.
(B) Preferência dos professores.
(C) Professores experientes com turmas de aprendizagem mais rápida.
(D) Professores experientes com turmas de aprendizagem mais lenta.
(E) Manutenção do professor com a mesma turma.
(F) Revezamento dos professores entre as séries.
(G) Sorteio das turmas entre os professores.
(H) Outro critério.
(I) Não houve critério pré-estabelecido.

35. QUAL É O PERCENTUAL DE PROFESSORES COM VÍNCULO ESTÁVEL NESTA ESCOLA?

(A) Menor ou igual a 25%.
(B) De 26% a 50%.
(C) De 51% a 75%.
(D) De 76% a 90%.
(E) De 91% a 100%.

36. NESTA ESCOLA, HÁ ALGUM PROGRAMA DE REDUÇÃO DAS TAXAS DE ABANDONO/EVASÃO?

(A) Sim, e o programa está sendo aplicado.
(B) Sim, mas ainda não foi implementado.
(C) Não criamos ainda o programa, embora exista o problema.
(D) Não, porque na minha escola não há esse tipo de problema.

37. NESTA ESCOLA, HÁ ALGUM PROGRAMA DE REDUÇÃO DAS TAXAS DE REPROVAÇÃO?

(A) Sim, e o programa está sendo aplicado.
(B) Sim, mas ainda não foi implementado.
(C) Não criamos ainda o programa, embora exista o problema.
(D) Não, porque na minha escola não há esse tipo de problema.

PARA EVITAR QUE OS ALUNOS FALTEM ÀS AULAS, (Marque SIM ou NÃO em cada linha.)

	Sim	Não
38. os professores falam com os alunos.	(A)	(B)
39. os pais/responsáveis são avisados por comunicação escrita.	(A)	(B)
40. os pais/responsáveis são chamados à escola para conversar sobre o assunto em reunião de pais.	(A)	(B)
41. os pais/responsáveis são chamados à escola para conversar sobre o assunto individualmente.	(A)	(B)
42. a escola envia alguém à casa do aluno.	(A)	(B)

43. ESTA ESCOLA DESENVOLVE, REGULARMENTE, ALGUM PROGRAMA DE APOIO OU REFORÇO DE APRENDIZAGEM PARA OS ALUNOS (monitoria, aula de reforço etc.)?

(A) Sim.
(B) Não.

44. VOCÊ TEM CONHECIMENTO DO CONTEÚDO DA LEI 11.645 DE 2008 QUE DETERMINA A OBRIGATORIEDADE DO ESTUDO DA TEMÁTICA "HISTÓRIA E CULTURA AFRO-BRASILEIRA E INDÍGENA" NOS ESTABELECIMENTOS DE ENSINO DO PAÍS?

(A) Sim.
(B) Não. Passe para a questão 46.

45. NESTE ANO, FORAM DESENVOLVIDAS ATIVIDADES PARA ATENDER O DETERMINADO PELA LEI 11.645 DE 2008 NESTA ESCOLA?

(A) Sim, de maneira sistemática e/ou abrangente.
(B) Sim, de maneira assistemática e/ou isolada.
(C) Não.

AS PERGUNTAS DE 46 A 55 APRESENTAM ALGUNS PROBLEMAS QUE PODEM OCORRER NAS ESCOLAS. RESPONDA SE CADA UM DELES OCORREU OU NÃO NESTE ANO. CASO TENHA OCORRIDO, ASSINALE SE FOI OU NÃO UM PROBLEMA GRAVE, DIFICULTANDO O FUNCIONAMENTO DA ESCOLA.

(Marque apenas UMA opção em cada linha.)

Ocorreu na escola	Não.	Sim, mas não foi um problema grave.	Sim e foi um problema grave.
46. insuficiência de recursos financeiros?	(A)	(B)	(C)
47. inexistência de professores para algumas disciplinas ou séries?	(A)	(B)	(C)
48. carência de pessoal administrativo?	(A)	(B)	(C)
49. carência de pessoal de apoio pedagógico (coordenador, supervisor, orientador educacional)?	(A)	(B)	(C)
50. falta de recursos pedagógicos?	(A)	(B)	(C)
51. interrupção das atividades escolares?	(A)	(B)	(C)
52. alto índice de faltas por parte de professores?	(A)	(B)	(C)
53. alto índice de faltas por parte de alunos?	(A)	(B)	(C)
54. rotatividade do corpo docente?	(A)	(B)	(C)
55. problemas disciplinares causados por alunos?	(A)	(B)	(C)

CONSIDERE AS CONDIÇÕES EXISTENTES PARA O EXERCÍCIO DO CARGO DE DIRETOR NESTA ESCOLA. (Marque SIM ou NÃO em cada linha.)

	Sim	Não
56. Há interferências externas em sua gestão?	(A)	(B)
57. Há apoio de instâncias superiores?	(A)	(B)
58. Há troca de informações com diretores de outras escolas?	(A)	(B)
59. Há apoio da comunidade à sua gestão?	(A)	(B)

INDIQUE SE NESTA ESCOLA EXISTEM OU NÃO OS RECURSOS APONTADOS E QUAIS SÃO SUAS CONDIÇÕES DE USO. (Marque apenas UMA opção em cada linha.)

	Bom	Regular	Ruim	Inexistente
60. Computadores para uso dos alunos.	(A)	(B)	(C)	(D)
61. Acesso à Internet para uso dos alunos.	(A)	(B)	(C)	(D)
62. Computadores para uso dos professores.	(A)	(B)	(C)	(D)
63. Acesso à Internet para uso dos professores.	(A)	(B)	(C)	(D)
64. Computadores exclusivamente para uso administrativo.	(A)	(B)	(C)	(D)
65. Fitas de vídeo ou DVD (educativas).	(A)	(B)	(C)	(D)
66. Fitas de vídeo ou DVD (lazer).	(A)	(B)	(C)	(D)
67. Máquina copiadora.	(A)	(B)	(C)	(D)
68. Impressora.	(A)	(B)	(C)	(D)
69. Retroprojetor.	(A)	(B)	(C)	(D)
70. Projetor de *slides.*	(A)	(B)	(C)	(D)
71. Videocassete ou DVD.	(A)	(B)	(C)	(D)
72. Televisão.	(A)	(B)	(C)	(D)
73. Antena parabólica.	(A)	(B)	(C)	(D)
74. Linha telefônica.	(A)	(B)	(C)	(D)
75. Aparelho de fax.	(A)	(B)	(C)	(D)
76. Aparelho de som.	(A)	(B)	(C)	(D)
77. Biblioteca.	(A)	(B)	(C)	(D)
78. Quadra de esportes.	(A)	(B)	(C)	(D)
79. Laboratório.	(A)	(B)	(C)	(D)
80. Auditório.	(A)	(B)	(C)	(D)
81. Sala para atividades de música.	(A)	(B)	(C)	(D)
82. Sala para atividades de artes plásticas.	(A)	(B)	(C)	(D)

QUE ATIVIDADES EXTRACURRICULARES SÃO DESENVOLVIDAS REGULARMENTE COM OS ALUNOS NESTA ESCOLA? (Marque SIM ou NÃO em cada linha.)

	Sim	Não
83. Esportivas.	(A)	(B)
84. Artísticas (música, teatro, trabalhos artesanais).	(A)	(B)

85. OS ESPAÇOS DESTA ESCOLA SÃO UTILIZADOS PARA ATIVIDADES COMUNITÁRIAS?

(A) Sim, planejadas apenas pela escola.
(B) Sim, planejadas apenas pela comunidade.
(C) Sim, planejadas conjuntamente (escola e comunidade).
(D) Não.

NESTE ANO, OCORRERAM NESTA ESCOLA (Marque SIM ou NÃO em cada linha.)	**Sim**	**Não**
86. eventos da comunidade usando instalações, equipamentos ou recursos da escola?	(A)	(B)
87. eventos de terceiros realizados na escola e abertos para a comunidade (*shows*, teatro, palestras)?	(A)	(B)
88. eventos da escola e destinados à comunidade externa (cursos, práticas esportivas, palestras)?	(A)	(B)
89. campanhas de solidariedade promovidas pela escola?	(A)	(B)
90. campanhas de solidariedade propostas pela comunidade, envolvendo a escola?	(A)	(B)
91. comunidade colaborando na manutenção de hortas, pomar, jardins?	(A)	(B)
92. comunidade participando em mutirão para limpeza da escola?	(A)	(B)
93. comunidade participando em mutirão para manutenção da estrutura física da escola?	(A)	(B)

QUANTO AO APOIO FINANCEIRO, ESTA ESCOLA PARTICIPA DE ALGUM (Marque apenas UMA opção em cada linha.)

	Sim	**Não**	**Não se aplica.**
94. Programa de Financiamento do Governo Federal?	(A)	(B)	(C)
95. Programa de Financiamento do Governo Estadual?	(A)	(B)	(C)
96. Programa de Financiamento do Governo Municipal?	(A)	(B)	(C)

PROGRAMA NACIONAL DO LIVRO DIDÁTICO

97. QUEM ESCOLHEU OS LIVROS DIDÁTICOS UTILIZADOS NESTA ESCOLA? (Escolha apenas UMA alternativa de resposta.)

(A) A equipe de professores da disciplina correspondente.
(B) O coordenador pedagógico, orientador educacional e eu, depois de consultarmos a equipe de professores da disciplina correspondente.
(C) O coordenador pedagógico ou orientador educacional escolheu sozinho.
(D) Eu escolhi sozinho.
(E) Órgãos de gerência externa à escola.
(F) Não sei.

NESTE ANO, OCORRERAM AS SEGUINTES SITUAÇÕES: (Marque SIM ou NÃO em cada linha.)

	Sim	**Não**
98. Os livros chegaram em tempo hábil para o início das aulas.	(A)	(B)
99. Faltaram livros para os alunos.	(A)	(B)
100. Sobraram livros.	(A)	(B)
101. Os livros escolhidos foram os recebidos.	(A)	(B)

VIOLÊNCIA NAS ESCOLAS

NESTE ANO, ACONTECERAM OS SEGUINTES FATOS NESTA ESCOLA:

	Agente causador Externo (estranho à escola)		**Agente causador Interno (da própria escola)**	
	Sim	**Não**	**Sim**	**Não**
102. Atentado à vida de professores ou funcionários dentro da escola.	(A)	(B)	(C)	(D)
103. Atentado à vida de alunos dentro da escola.	(A)	(B)	(C)	(D)
104. Furto a professores ou funcionários dentro da escola.	(A)	(B)	(C)	(D)
105. Furto a alunos dentro da escola.	(A)	(B)	(C)	(D)
106. Roubo (com uso de violência) a professores ou funcionários dentro da escola.	(A)	(B)	(C)	(D)
107. Roubo (com uso de violência) a alunos dentro da escola.	(A)	(B)	(C)	(D)
108. Furto de equipamentos e materiais didáticos ou pedagógicos da escola.	(A)	(B)	(C)	(D)
109. Roubo (com uso de violência) de equipamentos e materiais didáticos ou pedagógicos da escola.	(A)	(B)	(C)	(D)
110. Quebra intencional de equipamento.	(A)	(B)	(C)	(D)
111. Pichação de muros ou paredes das dependências externas da escola.	(A)	(B)	(C)	(D)
112. Depredação das dependências externas da escola.	(A)	(B)	(C)	(D)
113. Sujeira nas dependências externas da escola.	(A)	(B)	(C)	(D)
114. Sujeira nas dependências internas da escola.	(A)	(B)	(C)	(D)

	Agente causador Externo (estranho à escola)		Agente causador Interno (da própria escola)	
	Sim	**Não**	**Sim**	**Não**
115. Pichação de muros ou paredes das dependências internas da escola.	(A)	(B)	(C)	(D)
116. Depredação das dependências internas da escola.	(A)	(B)	(C)	(D)
117. Depredação de banheiros.	(A)	(B)	(C)	(D)
118. Consumo de bebidas alcoólicas nas dependências da escola.	(A)	(B)	(C)	(D)
119. Consumo de drogas nas dependências da escola.	(A)	(B)	(C)	(D)
120. Consumo de drogas nas proximidades da escola.	(A)	(B)	(C)	(D)
121. Tráfico de drogas nas dependências da escola.	(A)	(B)	(C)	(D)
122. Tráfico de drogas nas proximidades da escola.	(A)	(B)	(C)	(D)

NESTE ANO, OS SEGUINTES EVENTOS FIZERAM OU NÃO PARTE DO COTIDIANO DESTA ESCOLA:

	Sim	**Não**
123. Membros da comunidade escolar portando arma de fogo.	(A)	(B)
124. Membros da comunidade escolar portando arma branca (faca, canivete, estilete etc.).	(A)	(B)
125. Ação de gangues nas dependências externas da escola.	(A)	(B)
126. Ação de gangues nas dependências internas da escola.	(A)	(B)

NESTE ANO, HOUVE

	Quem foi o agressor?					
	Aluno (1)		**Professor (2)**		**Funcionário (3)**	
	Sim	**Não**	**Sim**	**Não**	**Sim**	**Não**
127. agressão verbal a professores.	(A)	(B)	(A)	(B)	(A)	(B)
128. agressão física a professores.	(A)	(B)	(A)	(B)	(A)	(B)
129. agressão verbal a alunos.	(A)	(B)	(A)	(B)	(A)	(B)
130. agressão física a alunos.	(A)	(B)	(A)	(B)	(A)	(B)
131. agressão verbal a funcionários.	(A)	(B)	(A)	(B)	(A)	(B)
132. agressão física a funcionários.	(A)	(B)	(A)	(B)	(A)	(B)

133. VOCÊ CONHECE OS RESULTADOS DO SISTEMA NACIONAL DE AVALIAÇÃO DA EDUCAÇÃO BÁSICA (SAEB)?

(A) Sim.
(B) Não.

134. A SUA ESCOLA PARTICIPOU DA PROVA BRASIL 2007?

(A) Sim.
(B) Não.

SAEB

ProvaBrasil 2011

Avaliação do Rendimento Escolar

PLANO DE DESENVOLVIMENTO DA EDUCAÇÃO

QUESTIONÁRIO DO DIRETOR

Senhor(a) Diretor(a),

O Sistema Nacional de Avaliação da Educação Básica, SAEB, é composto por dois tipos de instrumentos de avaliação: as provas aplicadas aos estudantes e os questionários socioeconômicos, que devem ser respondidos pelos estudantes, professores e diretores das escolas avaliadas.

O presente questionário tem como objetivo coletar dados acerca da formação profissional, práticas gerenciais e do perfil socioeconômico e cultural dos diretores das escolas em que a avaliação está sendo aplicada. Para responder a cada questão deste questionário, preencha, na **FOLHA DE RESPOSTAS**, o campo correspondente à alternativa de sua escolha. Utilize caneta esferográfica de tinta azul ou preta.

A sua colaboração ao preencher este questionário será de grande valia para o êxito da avaliação e para o aprimoramento da educação brasileira.

Ministério da Educação

GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

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Cliente: Questionário do Diretor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
☒ NOVO ☐ Rep.Alt.OF.: . . . . - .			PF:		Pág. 1/8 via(s)

1. SEXO

A Masculino. B Feminino.

2. IDADE

A Até 24 anos.
B De 25 a 29 anos.
C De 30 a 39 anos.
D De 40 a 49 anos.
E De 50 a 54 anos.
F 55 anos ou mais.

3. COMO VOCÊ SE CONSIDERA?

A Branco (a).
B Pardo (a).
C Preto (a).
D Amarelo (a).
E Indígena.
F Não sei.

4. QUAL O SEU NÍVEL DE ESCOLARIDADE (ATÉ A GRADUAÇÃO).

A Ensino fundamental incompleto.
B Ensino fundamental completo.
C Ensino médio incompleto (antigo 2.º grau).
D Ensino Médio - Normal / Magistério.
E Ensino Médio completo.
F Ensino superior incompleto.
G Ensino Superior – Pedagogia.
H Ensino Superior – Escola Normal Superior.
I Ensino Superior – outras Licenciaturas.
J Ensino Superior – outros.

5. HÁ QUANTOS ANOS VOCÊ OBTEVE O NÍVEL DE ESCOLARIDADE ASSINALADO ANTERIORMENTE?

A Há 2 anos ou menos.
B De 3 a 7 anos.
C De 8 a 14 anos.
D De 15 a 20 anos.
E Há mais de 20 anos.

6. EM QUE TIPO DE INSTITUIÇÃO VOCÊ FEZ O CURSO SUPERIOR? SE VOCÊ ESTUDOU EM MAIS DE UMA INSTITUIÇÃO, ASSINALE AQUELA EM QUE OBTEVE O SEU TÍTULO PROFISSIONAL.

A Pública federal.
B Pública estadual.
C Pública municipal.
D Privada.
E Não se aplica.

7. QUAL ERA A NATUREZA DESSA INSTITUIÇÃO?

A Faculdade isolada.
B Centro Universitário.
C Universidade.
D Não se aplica.

8. DE QUE FORMA VOCÊ REALIZOU O CURSO SUPERIOR?

A Presencial.
B Semi-presencial.
C À distância.
D Não se aplica.

9. INDIQUE A MODALIDADE DO CURSO DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

A Atualização (mínimo de 180 horas).
B Especialização (mínimo de 360 horas).
C Mestrado.
D Doutorado.
E Não fiz ou ainda não completei curso de pós-graduação.

10. INDIQUE A ÁREA TEMÁTICA DO CURSO DE PÓS-GRADUAÇAO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

A Educação, enfatizando Gestão e Administração Escolar.
B Educação, enfatizando a área pedagógica.
C Educação – outras ênfases.
D Outras áreas que não seja a Educação.
E Não se aplica.

11. VOCÊ PARTICIPOU DE ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO ETC.) NOS ÚLTIMOS DOIS ANOS?

A Sim.
B Não. (Passe para a questão 14)

12. QUAL A CARGA HORÁRIA DA ATIVIDADE MAIS RELEVANTE DA QUAL VOCÊ PARTICIPOU?

A Menos de 20 horas.
B De 20 a 40 horas.
C De 40 a 80 horas.
D Mais de 80 horas.

13. VOCÊ UTILIZA OS CONHECIMENTOS ADQUIRIDOS NAS ATIVIDADES DE FORMAÇÃO CONTINUADA DE QUE VOCÊ PARTICIPOU?

A Quase sempre.
B Eventualmente.
C Quase nunca.
D Nunca.

14.QUAL É APROXIMADAMENTE O SEU SALÁRIO BRUTO COMO DIRETOR(A), COM ADICIONAIS, SE HOUVER? (Preencha os espaços com o valor e marque, na folha de respostas, os campos correspondentes a cada algarismo.)

□□.□□□,□□

15. QUAL É APROXIMADAMENTE SUA RENDA FAMILIAR BRUTA? (Preencha os espaços com o valor e marque, na folha de respostas, os campos correspondentes a cada algarismo.)

□□.□□□,□□

16. ALÉM DA DIREÇÃO DESTA ESCOLA, VOCÊ EXERCE OUTRA ATIVIDADE QUE CONTRIBUI PARA SUA RENDA PESSOAL?

A Sim, na área de Educação.
B Sim, fora da área de Educação.
C Não.

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Cliente: Questionário do Diretor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
☒ NOVO ☐ Rep.Alt.OF.: . . . . - .			PF:		Pág. 2/8 via(s)

17. HÁ QUANTOS ANOS VOCÊ TRABALHA EM EDUCAÇÃO?

A Menos de um ano.
B De 1 a menos de 2 anos.
C De 2 a menos de 5 anos.
D De 5 a menos de 7 anos.
E De 7 a menos de 10 anos.
F De 10 a menos de 15 anos.
G De 15 a menos de 20 anos.
H 20 anos ou mais.

18. HÁ QUANTOS ANOS VOCÊ EXERCE FUNÇÕES DE DIREÇÃO?

A Menos de 1 ano.
B De 1 a menos de 2 anos.
C De 2 a menos de 5 anos.
D De 5 a menos de 7 anos.
E De 7 a menos de 10 anos.
F De 10 a menos de 15 anos.
G De 15 a menos de 20 anos.
H 20 anos ou mais.

19. HÁ QUANTOS ANOS VOCÊ É DIRETOR(A) DESTA ESCOLA?

A Menos de um ano.
B De 1 a menos de 2 anos.
C De 2 a menos de 5 anos.
D De 5 a menos de 7 anos.
E De 7 a menos de 10 anos.
F De 10 a menos de 15 anos.
G De 15 a menos de 20 anos.
H 20 anos ou mais.

20. QUAL É A SUA CARGA HORÁRIA DE TRABALHO NESTA ESCOLA?

A Até 20 horas semanais.
B Até 30 horas semanais.
C Até 40 horas semanais.
D Mais de 40 horas semanais.

21. VOCÊ ASSUMIU A DIREÇÃO DESTA ESCOLA POR:

A Seleção.
B Eleição apenas.
C Seleção e eleição.
D Indicação de técnicos.
E Indicação de políticos.
F Outras indicações.
G Outra forma.

22. VOCÊ PROMOVEU ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO ETC.) NESTA ESCOLA?

A Sim.
B Não. (passe para questão 24)

23. QUAL FOI A PROPORÇÃO DE DOCENTES DA SUA ESCOLA QUE PARTICIPOU DAS ATIVIDADES DE FORMAÇÃO CONTINUADA PROMOVIDAS POR VOCÊ NOS ÚLTIMOS DOIS ANOS?

A Menos de 10%.
B Entre 11% e 30%.
C Entre 31% e 50%.
D Mais de 50%.
E Não sei.

24. CONSELHO DE ESCOLA É UM COLEGIADO CONSTITUÍDO POR REPRESENTANTES DA ESCOLA E DA COMUNIDADE QUE TEM COMO OBJETIVO ACOMPANHAR AS ATIVIDADES ESCOLARES. NESTE ANO, QUANTAS VEZES O CONSELHO DESTA ESCOLA SE REUNIU?

A Uma vez.
B Duas vezes.
C Três vezes ou mais.
D Nenhuma vez.
E Não existe Conselho de Escola. (passe para questão 29)

O CONSELHO DE SUA ESCOLA É COMPOSTO POR :
(Marque SIM ou NÃO em cada linha).

	Sim	Não
25. professores.	A	B
26. alunos.	A	B
27. funcionários.	A	B
28. pais.	A	B

29. CONSELHO DE CLASSE É UM ÓRGÃO FORMADO POR TODOS OS PROFESSORES QUE LECIONAM EM CADA TURMA/SÉRIE. NESTE ANO, QUANTAS VEZES SE REUNIRAM OS

A Uma vez.
B Duas vezes.
C Três vezes ou mais.
D Nenhuma vez.
E Não existe Conselho de Classe.

30. COMO FOI DESENVOLVIDO O PROJETO PEDAGÓGICO DESTA ESCOLA NESTE ANO? (Marque apenas **UMA** opção)

A Foi elaborado de acordo com o modelo encaminhado pela Secretaria da Educação.
B Foi elaborado por mim.
C Depois de eu ter elaborado uma proposta do projeto, apresentei-a aos professores para sugestões e só depois escrevi a versão final.
D Os professores elaboraram uma proposta e, com base nela, escrevi a versão final.
E Uma equipe de professores e eu elaboramos o projeto.
F Professores, pais, outros servidores, estudantes e eu montamos o projeto.
G Foi elaborado de outra maneira.
H Não sei como foi desenvolvido.
I Não existe Projeto Pedagógico.

31. QUAL É O CRITÉRIO PARA A ADMISSÃO DE ALUNOS NESTA ESCOLA?

A Prova de seleção.
B Sorteio.
C Local de moradia.
D Prioridade por ordem de chegada.
E Outro critério.
F Não existe critério pré-estabelecido.

32. NESTE ANO LETIVO, COMO FOI A SITUAÇÃO DA OFERTA DE VAGAS NESTA ESCOLA?
(Marque apenas **UMA** opção.)

A Após o processo de matrícula, a escola ainda tinha vagas disponíveis.
B A procura por vaga na escola preencheu todas as vagas oferecidas.
C A procura por vaga na escola foi um pouco maior que as vagas oferecidas.
D A procura por vaga na escola superou em muito o número de vagas oferecidas.

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Cliente: Questionário do Diretor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
[X] NOVO [ ] Rep.Alt.OF.: . . . . - .			PF:	. . . .	Pág. 3/8 via(s)

33. QUAL O CRITÉRIO UTILIZADO PARA FORMAÇÃO DAS TURMAS NESTA ESCOLA?

A Homogeneidade quanto à idade (alunos com a mesma idade).
B Homogeneidade quanto ao rendimento escolar (alunos com similar rendimento).
C Heterogeneidade quanto à idade (alunos com idades diferentes).
D Heterogeneidade quanto ao rendimento escolar (alunos com nível de rendimento diferente).
E Não houve critério.

34. NESTE ANO, QUAL FOI O CRITÉRIO MAIS IMPORTANTE PARA A ATRIBUIÇÃO DAS TURMAS DE 1.ª A 4.ª SÉRIES (1º AO 5º ANO) DO ENSINO FUNDAMENTAL AOS PROFESSORES?

A Esta escola não oferece 1.ª a 4.ª séries (1.º ao 5.º ano) do Ensino Fundamental.
B Preferência dos professores.
C Professores experientes com turmas de aprendizagem mais rápida.
D Professores experientes com turmas de aprendizagem mais lenta.
E Manutenção do professor com a mesma turma.
F Revezamento dos professores entre as séries.
G Sorteio das turmas entre os professores.
H Outro critério.
I Não houve critério pré-estabelecido.

35. QUAL É O PERCENTUAL DE PROFESSORES COM VÍNCULO ESTÁVEL NESTA ESCOLA?

A Menor ou igual a 25%.
B De 26% a 50%.
C De 51% a 75%.
D De 76% a 90%.
E De 91% a 100%.

36. NESTA ESCOLA, HÁ ALGUM PROGRAMA DE REDUÇÃO DAS TAXAS DE ABANDONO?

A Sim, e o programa está sendo aplicado.
B Sim, mas ainda não foi implementado.
C Não criamos ainda o programa, embora exista o problema.
D Não, porque na minha escola não há esse tipo de problema.

37. NESTA ESCOLA, HÁ ALGUM PROGRAMA DE REDUÇÃO DAS TAXAS DE REPROVAÇÃO?

A Sim, e o programa está sendo aplicado.
B Sim, mas ainda não foi implementado.
C Não criamos ainda o programa, embora exista o problema.
D Não, porque na minha escola não há esse tipo de problema.

PARA EVITAR QUE OS ALUNOS FALTEM ÀS AULAS

	Sim	Não
38. Os professores falam com os alunos.	A	B
39. Os pais/responsáveis são avisados por comunicação escrita.	A	B
40. Os pais/responsáveis são chamados à escola para conversar sobre o assunto em reunião de pais.	A	B
41. Os pais/responsáveis são chamados à escola para conversar sobre o assunto individualmente.	A	B
42. A escola envia alguém à casa do aluno.	A	B

43. ESTA ESCOLA DESENVOLVE, REGULARMENTE, ALGUM PROGRAMA DE APOIO OU REFORÇO DE APRENDIZAGEM PARA OS ALUNOS (MONITORIA, AULA DE REFORÇO, ETC.)?

A Sim.
B Não.

44. VOCÊ TEM CONHECIMENTO DO CONTEÚDO DA LEI N.º 11.645 DE 2008 QUE DETERMINA A OBRIGATORIEDADE DO ESTUDO DA TEMÁTICA "HISTÓRIA E CULTURA AFRO-BRASILEIRA E INDÍGENA" NOS ESTABELECIMENTOS DE ENSINO DO PAÍS?

A Sim.
B Não. (passe para questão 46)

45. NESTE ANO, FORAM DESENVOLVIDAS ATIVIDADES PARA ATENDER O DETERMINADO PELA LEI N.º 11.645 DE 2008 NESTA ESCOLA?

A Sim, de maneira sistemática e/ou abrangente.
B Sim, de maneira assistemática e/ou isolada.
C Não.

EM RELAÇÃO À MERENDA ESCOLAR, COMO VOCÊ CONSIDERA :

	INEXISTENTE	RUIM	RAZOÁVEL	BOM	ÓTIMO
46. Os recursos financeiros.	A	B	C	D	E
47. A quantidade de alimentos.	A	B	C	D	E
48. A qualidade dos alimentos.	A	B	C	D	E
49. A variedade do cardápio.	A	B	C	D	E
50. O armazenamento e conservação.	A	B	C	D	E
51. O espaço físico para cozinhar.	A	B	C	D	E
52. A higiene.	A	B	C	D	E
53. A disponibilidade de pessoal.	A	B	C	D	E
54. A qualificação do pessoal.	A	B	C	D	E

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Cliente: Questionário do Diretor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
X NOVO ☐ Rep.Alt.OF.: . . . . - .			PF:	. . . .	Pág. 4/8 via(s)

AS PERGUNTAS DE 55 A 64 APRESENTAM ALGUNS PROBLEMAS QUE PODEM OCORRER NAS ESCOLAS. RESPONDA QUAL DELES OCORREU OU NÃO NESTE ANO. CASO TENHA OCORRIDO, ASSINALE SE FOI OU NÃO UM PROBLEMA GRAVE, DIFICULTANDO O FUNCIONAMENTO DA ESCOLA. (Marque apenas **UMA** opção em cada linha)

OCORREU NA ESCOLA	NÃO	SIM, MAS NÃO FOI UM PROBLEMA GRAVE.	SIM, E FOI UM PROBLEMA GRAVE.
55. Insuficiência de recursos financeiros?	A	B	C
56. Inexistência de professores para algumas disciplinas ou séries?	A	B	C
57. Carência de pessoal administrativo?	A	B	C
58. Carência de pessoal de apoio pedagógico (coordenador, supervisor, orientador educacional)?	A	B	C
59. Falta de recursos pedagógicos?	A	B	C
60. Interrupção das atividades escolares?	A	B	C
61. Alto índice de faltas por parte dos professores?	A	B	C
62. Alto índice de faltas por parte dos alunos?	A	B	C
63. Rotatividade do corpo docente?	A	B	C
64. Problemas disciplinares causados por alunos?	A	B	C

CONSIDERE AS CONDIÇÕES EXISTENTES PARA O EXERCÍCIO DO CARGO DE DIRETOR NESTA ESCOLA.

	Sim	Não
65. Há interferências externas em sua gestão?	A	B
66. Há apoio de instâncias superiores?	A	B
67. Há troca de informações com diretores de outras escolas?	A	B
68. Há apoio da comunidade à sua gestão?	A	B

AS PERGUNTAS DE 69 A 113 REFEREM-SE ÀS CONDIÇÕES DE ACESSIBILIDADE

NAS IMEDIAÇÕES OU NA FRENTE DA ESCOLA, AS CALÇADAS:

	Sim	Não
69. Possuem pavimento regular, plano, sem buracos ou degraus?	A	B
70. Possuem largura mínima de 1,20 m?	A	B
71. Garantem uma faixa de circulação livre de obstáculos com largura mínima de 80 cm? *(Obstáculos: poste, árvore, floreira, orelhão, lixeira, placa de sinalização etc.)*	A	B

NAS IMEDIAÇÕES OU NA FRENTE DA ESCOLA:

	Sim	Não
72. Há semáforo para pedestres?	A	B
73. O semáforo é sonoro?	A	B
74. Há faixa de travessia (faixa de pedestres ou faixa de segurança)?	A	B
75. As calçadas são rebaixadas com rampas dos dois lados da rua no trecho da travessia?	A	B
76. Há vaga sinalizada para veículos para pessoas com deficiência?	A	B
77. O portão de acesso de pedestres à escola é separado da entrada de carros?	A	B
78. O portão de acesso tem largura mínima de 80 cm?	A	B

NO INTERIOR DA ESCOLA, NA ENTRADA PRINCIPAL E NAS CIRCULAÇÕES INTERNAS:

	Sim	Não
79. Os corredores e as calçadas tem largura mínima de 1,20 m?	A	B
80. Há faixa de circulação livre de obstáculos com largura mínima de 80 cm? (Obstáculos: extintor de incêndio, vasos, lixeiras, móveis, bebedouros etc.)	A	B
81. O piso é plano, sem degraus e sem desníveis superiores a 1,5 cm?	A	B
82. Há rampas?	A	B
83. As rampas têm largura mínima de 80 cm?	A	B

	Sim	Não	Não se aplica
84. Há rampas com corrimão dos dois lados?	A	B	C
85. As escadas têm corrimãos dos dois lados?	A	B	C
86. Há elevadores ou plataformas elevatórias?	A	B	C

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Cliente: Questionário do Diretor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
[X] NOVO [ ] Rep.Alt.OF.: . . . . - .			PF:	. . . .	Pág. 5/8 via(s)

NAS SALAS DE AULA, NA ADMINISTRAÇÃO, NA BIBLIOTECA E OUTROS AMBIENTES:	Sim	Não
87. Nas portas, há soleiras niveladas com o piso do corredor, pequenas rampas ou degraus de no máximo 1,5 cm?	A	B
88. As portas de entrada possuem largura mínima de 80 cm?	A	B
89. As maçanetas são de alavanca?	A	B
90. Há algum tipo de sinalização em Braille nos ambientes?	A	B

OS BANHEIROS:	Sim	Não
91. Há pelo menos um sanitário adequado a pessoas com deficiência?	A	B
92. Há pelo menos um sanitário adequado a pessoas com deficiência para cada sexo?	A	B
93. As portas possuem largura mínima de 80 cm?	A	B
94. Há banheiros ou mictórios com portas que abrem para fora?	A	B
95. As maçanetas são de alavanca?	A	B
96. Há espaço para cadeira de rodas e para transferência de pelo menos 80 cm²?	A	B
97. Há barras de apoio fixadas nas paredes de fundo e na lateral do vaso sanitário?	A	B
98. Há pia com torneira com acionamento por alavanca, pressão ou cruzeta (em cruz)?	A	B
99. Há pia com altura entre 78 e 80 cm e com vão inferior livre com altura de 73 cm?	A	B

A ESCOLA POSSUI:	Sim	Não
100. Sala de recursos multifuncionais para Atendimento Educacional Especializado (AEE)?	A	B
101. Materiais didáticos e paradidáticos acessíveis? (Braille, caracteres ampliados, libras, texturas, contrastes etc.)	A	B
102. Recursos ópticos? (ex.: lupa, telelupa, telescópio, lentes especiais etc.)	A	B
103. Recursos não ópticos? (ex.: celofane amarelo, livro falado, material impresso com tipos maiores, tábua de apoio para leitura, lápis e canetas especiais, guia de leitura etc.)	A	B
104. Soroban?	A	B
105. Reglete e punção?	A	B
106. Calculadora sonora?	A	B
107. Calculadora para pessoas com baixa visão?	A	B
108. Máquina Perkins? (máquina de escrever em Braille)	A	B
109. Computador com software leitor de tela?	A	B
110. Software de comunicação alternativa aumentativa (CAA)?	A	B
111. Mesas e carteiras acessíveis para pessoas em cadeiras de rodas?	A	B
112. Quadro negro (ou branco) sem degraus com altura que permita seu alcance por pessoa em cadeira de rodas?	A	B
113. Bebedouros que permitem a aproximação frontal de pessoas em cadeiras de rodas?	A	B

QUE ATIVIDADES EXTRACURRICULARES SÃO DESENVOLVIDAS REGULARMENTE COM OS ALUNOS NESTA ESCOLA?

	Sim	Não
114. Esportivas.	A	B
115. Artísticas (música, teatro, trabalhos artesanais).	A	B

116. OS ESPAÇOS DESTA ESCOLA SÃO UTILIZADOS PARA ATIVIDADES COMUNITÁRIAS?

- A Sim, planejadas apenas pela escola.
- B Sim, planejadas apenas pela comunidade.
- C Sim, planejadas conjuntamente (escola e comunidade).
- D Não.

NESTE ANO, OCORRERAM NESTA ESCOLA:	Sim	Não
117. Eventos da comunidade usando instalações, equipamentos ou recursos da escola?	A	B
118. Eventos de terceiros realizados na escola e abertos para a comunidade (shows, teatro, palestras)?	A	B
119. Eventos da escola e destinados à comunidade externa (cursos, práticas esportivas, palestras)?	A	B
120. Campanhas de solidariedade promovidas pela escola?	A	B
121. Campanhas de solidariedade propostas pela comunidade, envolvendo a escola?	A	B
122. Comunidade colaborando na manutenção de hortas, pomar, jardins?	A	B
123. Comunidade participando em mutirão para limpeza da escola?	A	B
124. Comunidade participando em mutirão para manutenção da estrutura física da escola?	A	B

Manufatura Pant. Azul Preto

Cliente: Questionário do Diretor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
[X] NOVO [ ] Rep.Alt.OF.: . . . . - .			PF:	. . . .	Pág. 6/8 via(s)

ESTA ESCOLA RECEBE APOIO FINANCEIRO DE:	Sim	Não	Não se aplica
125. Programa de Financiamento do Governo Federal?	A	B	C
126. Programa de Financiamento do Governo Estadual?	A	B	C
127. Programa de Financiamento do Governo Municipal?	A	B	C

128. QUEM ESCOLHEU OS LIVROS DIDÁTICOS UTILIZADOS NESTA ESCOLA?

A A equipe de professores da disciplina correspondente.

B O coordenador pedagógico, orientador educacional e eu, depois de consultarmos a equipe de professores da disciplina correspondente.

C O coordenador pedagógico ou orientador educacional escolheu sozinho.

D Eu escolhi sozinho.

E Órgãos de gerência externa à escola.

F Não sei.

NESTE ANO, OCORRERAM AS SEGUINTES SITUAÇÕES:	Sim	Não	Não se aplica
129. Os livros chegaram em tempo hábil para o início das aulas.	A	B	C
130. Faltaram livros para os alunos.	A	B	C
131. Sobraram livros.	A	B	C
132. Os livros escolhidos foram os recebidos.	A	B	C

NESTE ANO, ACONTECERAM OS SEGUINTES FATOS NESTA ESCOLA:	AGENTE CAUSADOR					
	EXTERNO (ESTRANHO A ESCOLA)			INTERNO (DA PRÓPRIA ESCOLA)		
		Sim	Não		Sim	Não
Atentado à vida de professores ou funcionários dentro da escola.	**133.**	A	B	**154.**	A	B
Atentado à vida de alunos dentro da escola.	**134.**	A	B	**155.**	A	B
Furto a professores ou funcionários dentro da escola.	**135.**	A	B	**156.**	A	B
Furto a alunos dentro da escola.	**136.**	A	B	**157.**	A	B
Roubo (com uso de violência) a professores ou funcionários dentro da escola.	**137.**	A	B	**158.**	A	B
Roubo (com uso de violência) a alunos dentro da escola.	**138.**	A	B	**159.**	A	B
Furto de equipamentos e materiais didáticos ou pedagógicos da escola.	**139.**	A	B	**160.**	A	B
Roubo (com uso de violência) de equipamentos e materiais didáticos ou pedagógicos da escola.	**140.**	A	B	**161.**	A	B
Quebra intencional de equipamento.	**141.**	A	B	**162.**	A	B
Pichação de muros ou paredes das dependências externas da escola.	**142.**	A	B	**163.**	A	B
Depredação das dependências externas da escola.	**143.**	A	B	**164.**	A	B
Sujeira nas dependências externas da escola.	**144.**	A	B	**165.**	A	B
Sujeira nas dependências internas da escola.	**145.**	A	B	**166.**	A	B
Pichação de muros ou paredes das dependências internas da escola.	**146.**	A	B	**167.**	A	B
Depredação das dependências internas da escola.	**147.**	A	B	**168.**	A	B
Depredação de banheiros.	**148.**	A	B	**169.**	A	B
Consumo de bebidas alcoólicas nas dependências da escola.	**149.**	A	B	**170.**	A	B
Consumo de drogas nas dependências da escola.	**150.**	A	B	**171.**	A	B
Consumo de drogas nas proximidades da escola.	**151.**	A	B	**172.**	A	B
Tráfico de drogas nas dependências da escola.	**152.**	A	B	**173.**	A	B
Tráfico de drogas nas proximidades da escola.	**153.**	A	B	**174.**	A	B

Manufatura Pant. Azul Preto

Cliente: Questionário do Diretor	Lar .(mm) 206	Alt .(") 278	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
[X] NOVO [ ] Rep.Alt.OF.: . . . . - .			PF:	. . . .	Pág. 7/8 via(s)

NESTE ANO, OS SEGUINTES EVENTOS FIZERAM OU NÃO PARTE DO COTIDIANO DESTA ESCOLA:

	Sim	Não
175. Membros da comunidade escolar portando arma de fogo.	A	B
176. Membros da comunidade escolar portando arma branca (faca, canivete, estilete etc.).	A	B
177. Ação de gangues nas dependências externas da escola.	A	B
178. Ação de gangues nas dependências internas da escola.	A	B

NESTE ANO, HOUVE

QUEM FOI O AGRESSOR?

	ALUNO		PROFESSOR		FUNCIONÁRIO	
	Sim	Não	Sim	Não	Sim	Não
179. Agressão verbal a professores.	A	B	**185.** Agressão verbal a professores. A	B	**191.** Agressão verbal a professores. A	B
180. Agressão física a professores.	A	B	**186.** Agressão física a professores. A	B	**192.** Agressão física a professores. A	B
181. Agressão verbal a alunos.	A	B	**187.** Agressão verbal a alunos. A	B	**193.** Agressão verbal a alunos. A	B
182. Agressão física a alunos.	A	B	**188.** Agressão física a alunos. A	B	**194.** Agressão física a alunos. A	B
183. Agressão verbal a funcionários.	A	B	**189.** Agressão verbal a funcionários. A	B	**195.** Agressão verbal a funcionários. A	B
184. Agressão física a funcionários.	A	B	**190.** Agressão física a funcionários. A	B	**196.** Agressão física a funcionários. A	B

NESTA ESCOLA HÁ PROJETOS NAS SEGUINTES TEMÁTICAS:

	Sim	Não
197. Combate à violência.	A	B
198. Os malefícios do uso de drogas.	A	B
199. Racismo.	A	B
200. Machismo e homofobia.	A	B
201. Bullying.	A	B
202. Sexualidade e gravidez na adolescência.	A	B
203. Desigualdades sociais.	A	B
204. Conflitos religiosos.	A	B
205. Meio ambiente.	A	B

NESTA ESCOLA HÁ:

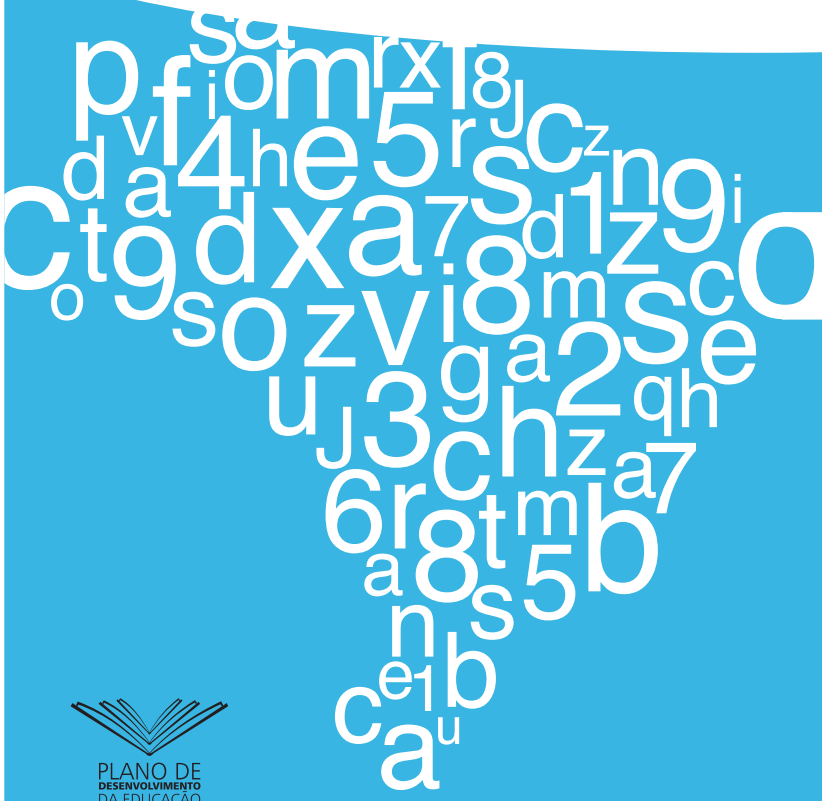
	Sim	Não
206. Costume de se fazer oração ou cantar músicas religiosas (na entrada, antes do lanche etc).	A	B
207. Objetos, imagens, frases ou símbolos de teor religioso.	A	B
208. Aula de ensino religioso.	A	B
209. Atividades alternativas para os estudantes que não queiram participar das aulas de ensino religioso.	A	B

NESTA ESCOLA, O ENSINO RELIGIOSO (SE NÃO HOUVER ENSINO RELIGIOSO DEIXE AS PRÓXIMAS QUESTÕES EM BRANCO):

	Sim	Não
210. É de presença obrigatória.	A	B
211. É de caráter confessional (segundo uma religião específica).	A	B
212. Contempla a diversidade religiosa.	A	B

Manufatura Pant. Azul Preto

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[X] NOVO [ ] Rep.Alt.OF.: . . . . . - .			PF:	. . . .	Pág. 8/8 via(s)



PLANO DE DESENVOLVIMENTO DA EDUCAÇÃO

SAEB

Prova Brasil 2013

Avaliação do Rendimento Escolar

QUESTIONÁRIO DO DIRETOR

Senhor(a) Diretor(a),

As avaliações do Sistema Nacional de Avaliação da Educação Básica (SAEB) são compostas por dois tipos de instrumentos de avaliação: as provas aplicadas aos estudantes e os questionários socioeconômicos, que devem ser respondidos pelos estudantes, professores e diretores das escolas avaliadas.

O presente questionário tem como objetivo coletar dados acerca da formação profissional, práticas gerenciais e do perfil socioeconômico e cultural dos diretores das escolas em que a avaliação está sendo aplicada. Para responder a cada questão deste questionário, preencha, no **CARTÃO-RESPOSTA**, o campo correspondente à alternativa de sua escolha. Utilize caneta esferográfica de tinta preta.

A sua colaboração ao preencher este questionário será de grande valia para o êxito da avaliação e para o aprimoramento da educação brasileira.

Por gentileza, escreva o seu CPF.

NÚMERO DO SEU CPF | | | | | | | | | | – | |

INEP Ministério da Educação GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

INFORMAÇÕES BÁSICAS - Estas questões são sobre sua formação, experiência profissional e características funcionais.

1. QUAL É O SEU SEXO?

A Masculino.
B Feminino.

2. VOCÊ PODERIA NOS DIZER A SUA FAIXA ETÁRIA?

A Até 24 anos.
B De 25 a 29 anos.
C De 30 a 39 anos.
D De 40 a 49 anos.
E De 50 a 54 anos.
F 55 anos ou mais.

3. COMO VOCÊ SE CONSIDERA?

A Branco (a).
B Pardo (a).
C Preto (a).
D Amarelo (a).
E Indígena.
F Não quero declarar.
G Não sei.

4. QUAL É O MAIS ALTO NÍVEL DE ESCOLARIDADE QUE VOCÊ CONCLUIU (ATÉ A GRADUAÇÃO)?

A Menos que o Ensino Médio (antigo 2.º grau).
B Ensino Médio – Magistério (antigo 2.º grau).
C Ensino Médio – Outros (antigo 2.º grau).
D Ensino Superior – Pedagogia.
E Ensino Superior – Curso Normal Superior.
F Ensino Superior – Licenciatura em Matemática.
G Ensino Superior – Licenciatura em Letras.
H Ensino Superior – Outras Licenciaturas.
I Ensino Superior – Outras áreas.

5. HÁ QUANTOS ANOS VOCÊ OBTEVE O NÍVEL DE ESCOLARIDADE ASSINALADO ANTERIORMENTE (ATÉ A GRADUAÇÃO)?

A Há menos 2 anos.
B De 2 a 7 anos.
C De 8 a 14 anos.
D De 15 a 20 anos.
E Há mais de 20 anos.

6. INDIQUE EM QUE TIPO DE INSTITUIÇÃO VOCÊ OBTEVE SEU DIPLOMA DE ENSINO SUPERIOR.

A Não conclui o ensino superior.
B Privada.
C Pública Federal.
D Pública Estadual.
E Pública Municipal.

7. DE QUE FORMA VOCÊ REALIZOU O CURSO DE ENSINO SUPERIOR?

A Não conclui o ensino superior.
B Presencial.
C Semipresencial.
D A distância.

8. INDIQUE O CURSO DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

A Não fiz ou não completei curso de pós-graduação.
B Atualização ou Aperfeiçoamento (mínimo 180 horas).
C Especialização (mínimo de 360 horas).
D Mestrado.
E Doutorado.

9. INDIQUE A ÁREA TEMÁTICA DO CURSO DE PÓS-GRADUAÇÃO DE MAIS ALTA TITULAÇÃO QUE VOCÊ POSSUI.

A Não fiz ou não completei curso de pós-graduação.
B Educação, enfatizando alfabetização.
C Educação, enfatizando linguística e/ou letramento.
D Educação, enfatizando educação matemática.
E Educação – outras ênfases.
F Outras áreas que não a Educação.

10. COMO DIRETOR, QUAL É, APROXIMADAMENTE, O SEU SALÁRIO BRUTO?(COM ADICIONAIS, SE HOUVER).

A Até R$ 678,00.
B Entre R$ 679,00 e R$ 1.017,00.
C Entre R$ 1.018,00 e R$ 1.356,00.
D Entre R$ 1.357,00 e R$ 1.695,00.
E Entre R$ 1.696,00 e R$ 2.034,00.
F Entre R$ 2.035,00 e R$ 2.373,00.
G Entre R$ 2.374,00 e R$ 2.712,00.
H Entre R$ 2.713,00 e R$ 3.390,00.
I Entre R$ 3.391,00 e R$ 4.746,00.
J Entre R$ 4.747,00 e R$ 6.780,00.
K R$ 6.781,00 ou mais.

11. ALÉM DA DIREÇÃO DESTA ESCOLA, VOCÊ EXERCE OUTRA ATIVIDADE QUE CONTRIBUI PARA SUA RENDA PESSOAL?

A Sim, na área de Educação.
B Sim, fora da área de Educação.
C Não.

12. CONSIDERANDO TODAS AS ATIVIDADES QUE VOCÊ EXERCE (DENTRO E FORA DA ÁREA DE EDUCAÇÃO), QUAL É, APROXIMADAMENTE, O SEU SALÁRIO BRUTO? (COM ADICIONAIS, SE HOUVER).

A Até R$ 678,00.
B Entre R$ 679,00 e R$ 1.017,00.
C Entre R$ 1.018,00 e R$ 1.356,00.
D Entre R$ 1.357,00 e R$ 1.695,00.
E Entre R$ 1.696,00 e R$ 2.034,00.
F Entre R$ 2.035,00 e R$ 2.373,00.
G Entre R$ 2.374,00 e R$ 2.712,00.
H Entre R$ 2.713,00 e R$ 3.390,00.
I Entre R$ 3.391,00 e R$ 4.746,00.
J Entre R$ 4.747,00 e R$ 6.780,00.
K R$ 6.781,00 ou mais.

13. QUAL É A SUA CARGA HORÁRIA DE TRABALHO SEMANAL, COMO DIRETOR, NESTA ESCOLA?

A Mais de 40 horas.
B 40 horas.
C De 20 a 39 horas.
D Menos de 20 horas.

14. VOCÊ ASSUMIU A DIREÇÃO DESTA ESCOLA POR MEIO DE:

A Concurso público apenas.
B Eleição apenas.
C Indicação apenas.
D Processo seletivo apenas.
E Processo seletivo e Eleição.
F Processo seletivo e Indicação.
G Outra forma.

15. POR QUANTO TEMPO VOCÊ TRABALHOU COMO PROFESSOR ANTES DE SE TORNAR DIRETOR?

A Nunca.
B Menos de um ano.
C 1-2 anos.
D 3-5 anos.
E 6-10 anos.
F 11-15 anos.
G 16-20 anos.
H Mais de 20 anos.

16. HÁ QUANTOS ANOS VOCÊ EXERCE FUNÇÕES DE DIREÇÃO?

A Menos de um ano.
B 1-2 anos.
C 3-5 anos.
D 6-10 anos.
E 11-15 anos.
F 16-20 anos.
G Mais de 20 anos.

17. HÁ QUANTOS ANOS VOCÊ É DIRETOR(A) DESTA ESCOLA?

- A Menos de um ano.
- B 1-2 anos.
- C 3-5 anos.
- D 6-10 anos.
- E 11-15 anos.
- F 16-20 anos.
- G Mais de 20 anos.

18. HÁ QUANTOS ANOS VOCÊ TRABALHA NA ÁREA DE EDUCAÇÃO?

- A Menos de um ano.
- B 1-2 anos.
- C 3-5 anos.
- D 6-10 anos.
- E 11-15 anos.
- F 16-20 anos.
- G Mais de 20 anos.

19. DURANTE OS ÚLTIMOS DOIS ANOS, VOCÊ PARTICIPOU DE ALGUMA ATIVIDADE DE DESENVOLVIMENTO PROFISSIONAL? A Não. B Sim.

20. SE VOCÊ PARTICIPOU DE ALGUMA ATIVIDADE DE DESENVOLVIMENTO PROFISSIONAL NOS ÚLTIMOS DOIS ANOS, COMO VOCÊ AVALIA O IMPACTO DA PARTICIPAÇÃO EM SUA ATIVIDADE COMO DIRETOR?

- A Não participei.
- B Sim, e não houve impacto.
- C Sim, e houve um pequeno impacto.
- D Sim, e houve um impacto moderado.
- E Sim, e houve um grande impacto.

21. NOS ÚLTIMOS DOIS ANOS, VOCÊ GOSTARIA DE TER PARTICIPADO DE MAIS ATIVIDADES DE DESENVOLVIMENTO PROFISSIONAL DO QUE VOCÊ PARTICIPOU? A Não. B Sim.

Comando das Questões 22 a 25

SE VOCÊ GOSTARIA DE TER PARTICIPADO DE MAIS ATIVIDADES DE DESENVOLVIMENTO PROFISSIONAL, OS SEGUINTES MOTIVOS IMPEDIRAM SUA PARTICIPAÇÃO?

	Não gostaria de ter participado.	Não.	Sim.
22. O desenvolvimento profissional era muito caro/eu não podia pagar.	A	B	C
23. Houve conflito com o meu horário de trabalho.	A	B	C
24. Não tinha disponibilidade de tempo.	A	B	C
25. Não houve oferta em minha área de interesse.	A	B	C

26. NOS ÚLTIMOS DOIS ANOS, VOCÊ ORGANIZOU ALGUMA ATIVIDADE DE FORMAÇÃO CONTINUADA (ATUALIZAÇÃO, TREINAMENTO, CAPACITAÇÃO ETC.) NESTA ESCOLA? A Não. B Sim.

27. QUAL FOI A QUANTIDADE DE DOCENTES DESTA ESCOLA QUE PARTICIPOU DAS ATIVIDADES DE FORMAÇÃO CONTINUADA QUE VOCÊ ORGANIZOU NOS ÚLTIMOS DOIS ANOS?

- A Não foram organizadas atividades de formação continuada.
- B Poucos professores.
- C Um pouco menos da metade dos professores.
- D Um pouco mais da metade dos professores.
- E Quase todos ou todos os professores.

CARACTERÍSTICAS DA EQUIPE ESCOLAR - Gostaríamos de lhe perguntar sobre as atividades e composição da equipe escolar

28. QUAL É O PERCENTUAL DE PROFESSORES COM VÍNCULO ESTÁVEL NESTA ESCOLA?

- A Menor ou igual a 25%.
- B De 26% a 50%.
- C De 51% a 75%.
- D De 76% a 90%.
- E De 91% a 100%.

29. O CONSELHO ESCOLAR É UM COLEGIADO GERALMENTE CONSTITUÍDO POR REPRESENTANTES DA ESCOLA E DA COMUNIDADE QUE TEM COMO OBJETIVO ACOMPANHAR AS ATIVIDADES ESCOLARES. NESTE ANO, QUANTAS VEZES SE REUNIU O CONSELHO ESCOLAR?

- A Não existe Conselho Escolar.
- B Nenhuma vez.
- C Uma vez.
- D Duas vezes.
- E Três vezes ou mais.

30. ALÉM DE VOCÊ, QUEM PARTICIPA DO CONSELHO ESCOLAR?

- A Não existe Conselho Escolar.
- B Professores, funcionários, alunos e pais/responsáveis.
- C Professores, funcionários e pais/responsáveis.
- D Professores, alunos e pais/responsáveis.
- E Professores, funcionários e alunos.
- F Professores e pais/responsáveis.
- G Outros.

31. O CONSELHO DE CLASSE É UM ÓRGÃO FORMADO POR TODOS OS PROFESSORES QUE LECIONAM EM CADA TURMA/SÉRIE. NESTE ANO E NESTA ESCOLA, QUANTAS VEZES SE REUNIU O CONSELHO DE CLASSE?

- A Não existe Conselho de Classe.
- B Nenhuma vez.
- C Uma vez.
- D Duas vezes.
- E Três vezes ou mais.

32. NESTE ANO E NESTA ESCOLA, COMO SE DEU A ELABORAÇÃO DO PROJETO PEDAGÓGICO?

A Não sei como foi desenvolvido.
B Não existe Projeto Pedagógico.
C Utilizando-se um modelo pronto, sem discussão com a equipe escolar.
D Utilizando-se um modelo pronto, mas com discussão com a equipe escolar.
E Utilizando-se um modelo pronto, porém com adaptações, sem discussão com a equipe escolar.
F Utilizando-se um modelo pronto, porém com adaptações e com discussão com a equipe escolar.
G Elaborou-se um modelo próprio, mas não houve discussão com a equipe escolar.
H Elaborou-se um modelo próprio e houve discussão com a equipe escolar.

POLÍTICAS, AÇÕES E PROGRAMAS ESCOLARES - Gostaríamos de lhe perguntar sobre as políticas utilizadas para admissão e alocação de alunos, bem como outras atividades desenvolvidas nesta escola.

33. ESTA ESCOLA PARTICIPOU DA PROVA BRASIL DE 2011? A Sim. B Não. C Não sei.

Comando das Questões 34 a 36 — **VOCÊ CONHECE OS RESULTADOS DO SAEB (PROVA BRASIL E/OU ANEB) DE 2011?**

34. DESTA ESCOLA?

A Sim.
B Não.
C Minha escola não participou.

35. DO SEU MUNICÍPIO?

A Sim.
B Não.
C Meu município não participou.

36. DO SEU ESTADO?

A Sim.
B Não.

37. NESTE ANO, QUAL FOI O CRITÉRIO PARA A ADMISSÃO DE ALUNOS NESTA ESCOLA?

A Prova de seleção.
B Sorteio.
C Local de moradia.
D Prioridade por ordem de chegada.
E Outro critério.

38. NESTE ANO, COMO FOI A SITUAÇÃO DA OFERTA DE VAGAS NESTA ESCOLA?

A Após o processo de matrícula, a escola ainda tinha vagas disponíveis.
B A procura por vaga na escola preencheu todas as vagas oferecidas.
C A procura por vaga na escola foi um pouco maior que as vagas oferecidas.
D A procura por vaga na escola superou em muito o número de vagas oferecidas.

39. NESTE ANO, QUAL FOI O PRINCIPAL CRITÉRIO UTILIZADO PARA FORMAÇÃO DAS TURMAS NESTA ESCOLA?

A Homogeneidade quanto à idade (alunos com a mesma idade).
B Homogeneidade quanto ao rendimento escolar (alunos com rendimento similar).
C Heterogeneidade quanto à idade (alunos com idades diferentes).
D Heterogeneidade quanto ao rendimento escolar (alunos com rendimentos diferentes).
E Outro critério.
F Não houve critério.

40. NESTE ANO, QUAL FOI O PRINCIPAL CRITÉRIO PARA A ATRIBUIÇÃO DAS TURMAS AOS PROFESSORES?

A Preferência dos professores.
B Escolha dos professores, de acordo com a pontuação por tempo de serviço e formação.
C Professores experientes com turmas de aprendizagem mais rápida.
D Professores experientes com turmas de aprendizagem mais lenta.
E Manutenção do professor com a mesma turma.
F Revezamento dos professores entre as séries.
G Sorteio das turmas entre os professores.
H Atribuição pela direção da escola.
I Outro critério.
J Não houve critério.

41. NESTA ESCOLA, HÁ ALGUMA AÇÃO PARA A REDUÇÃO DAS TAXAS DE ABANDONO?

A Não há ação, embora exista o problema.
B Não há ação, porque nesta escola não há esse tipo de problema.
C Sim, mas com resultados ainda insatisfatórios.
D Sim, com resultados satisfatórios.
E Sim, mas ainda não avaliamos o resultado.

42. NESTA ESCOLA, HÁ ALGUMA AÇÃO PARA A REDUÇÃO DAS TAXAS DE REPROVAÇÃO?

A Não há ação, embora exista o problema.
B Não há ação, porque nesta escola não há esse tipo de problema.
C Sim, mas com resultados ainda insatisfatórios.
D Sim, com resultados satisfatórios.
E Sim, mas ainda não avaliamos o resultado.

43. NESTA ESCOLA, HÁ ALGUMA AÇÃO PARA O REFORÇO ESCOLAR À APRENDIZAGEM DOS ALUNOS (MONITORIA, AULA DE REFORÇO, RECUPERAÇÃO ETC.)?

A Não. B Sim.

44. NESTA ESCOLA, INDIQUE COM QUE FREQUÊNCIA VOCÊ DISCUTE COM OS PROFESSORES MEDIDAS COM O OBJETIVO DE MELHORAR O ENSINO E A APRENDIZAGEM DOS ALUNOS.

A Nunca.
B Algumas vezes.
C Frequentemente.
D Sempre ou quase sempre.

Comando das Questões 45 a 49 — **INDIQUE COM QUAL FREQUÊNCIA SÃO DESENVOLVIDAS AS SEGUINTES ATIVIDADES PARA MINIMIZAR AS FALTAS DOS ALUNOS NESTE ANO E NESTA ESCOLA:**

	Nunca.	Algumas vezes.	Frequentemente.	Sempre ou quase sempre.
45. Os professores conversam com os alunos para tentar solucionar o problema.	A	B	C	D
46. Os pais/responsáveis são avisados por comunicação da escola.	A	B	C	D
47. Os pais/responsáveis são chamados à escola para conversar sobre o assunto em reunião de pais.	A	B	C	D
48. Os pais/responsáveis são chamados à escola para conversar sobre o assunto individualmente.	A	B	C	D
49. A escola envia alguém à casa do aluno.	A	B	C	D

Comando das Questões 50 a 55 — **INDIQUE COM QUAL FREQUÊNCIA VOCÊ DESENVOLVEU AS SEGUINTES ATIVIDADES NESTE ANO E NESTA ESCOLA:**

	Nunca.	Algumas vezes.	Frequentemente.	Sempre ou quase sempre.
50. Desenvolveu atividades extracurriculares em esporte.	A	B	C	D
51. Desenvolveu atividades extracurriculares em artes.	A	B	C	D
52. Desenvolveu projetos temáticos (ex.: bullying, meio ambiente, desigualdades sociais, etc).	A	B	C	D
53. Neste ano, a escola promoveu eventos para a comunidade.	A	B	C	D
54. Os espaços desta escola são utilizados para eventos promovidos pela comunidade.	A	B	C	D
55. Neste ano, a comunidade colaborou com trabalho voluntário para esta escola. (por exemplo, desenvolvendo atividades, ajudando na manutenção da escola etc).	A	B	C	D

56. QUANTOS ESTUDANTES COM DEFICIÊNCIA OU NECESSIDADES ESPECIAIS ESTUDAM NESTA ESCOLA NESTE ANO?

A Nenhum.
B Entre 1 e 5 alunos.
C Entre 6 e 10 alunos.
D Entre 11 e 20 alunos.
E Mais de 20 alunos.

Comando das Questões 57 a 61 — **AVALIE OS SEGUINTES ASPECTOS EM RELAÇÃO À ACESSIBILIDADE NESTA ESCOLA:**

57. A INFRAESTRUTURA DA ESCOLA É ADEQUADA ÀS PESSOAS COM DEFICIÊNCIA OU NECESSIDADES ESPECIAIS?

A Não.
B Sim, mas pouco adequada.
C Sim, suficientemente adequada.

58. A ESCOLA POSSUI SALA DE RECURSOS MULTIFUNCIONAIS PARA ATENDIMENTO EDUCACIONAL ESPECIALIZADO (AEE)?

A Não possui sala de recursos.
B Sim, mas com poucos recursos.
C Sim, com recursos suficientes.

59. VOCÊ POSSUI FORMAÇÃO ESPECÍFICA PARA TRABALHAR COM ESTUDANTES COM DEFICIÊNCIA OU NECESSIDADES ESPECIAIS?

A Não.
B Sim, mas apenas em uma área/deficiência.
C Sim, em mais de uma área/deficiência.

60. OS PROFESSORES DESTA ESCOLA POSSUEM FORMAÇÃO ESPECÍFICA PARA TRABALHAR COM ESTUDANTES COM DEFICIÊNCIA OU NECESSIDADES ESPECIAIS?

A Não.
B Sim, mas em número insuficiente.
C Sim, em número suficiente.

61. OS DEMAIS FUNCIONÁRIOS DESTA ESCOLA POSSUEM FORMAÇÃO PARA TRABALHAR COM ESTUDANTES COM DEFICIÊNCIA OU NECESSIDADES ESPECIAIS?

A Não.
B Sim, mas em número insuficiente.
C Sim, em número suficiente.

VISÃO SOBRE A MERENDA ESCOLAR - Gostaríamos de saber a sua opinião sobre a merenda oferecida nesta escola.

Comando das Questões 62 a 66 — **EM RELAÇÃO À MERENDA ESCOLAR, COMO VOCÊ AVALIA OS SEGUINTES ASPECTOS:**

	Inexistente.	Ruim.	Razoável.	Bom.	Ótimo.
62. Recursos financeiros.	A	B	C	D	E
63. Quantidade de alimentos.	A	B	C	D	E
64. Qualidade dos alimentos.	A	B	C	D	E
65. Espaço físico para cozinhar.	A	B	C	D	E
66. Disponibilidade de funcionários.	A	B	C	D	E

VISÃO SOBRE OS PROBLEMAS DA ESCOLA E DIFICULDADE DE GESTÃO - Gostaríamos de saber a sua opinião sobre os principais problemas desta escola e as dificuldades que você encontra na gestão escolar.

Comando das Questões 67 a 76 — **O FUNCIONAMENTO DA ESCOLA FOI DIFICULTADO POR ALGUM DOS SEGUINTES PROBLEMAS?**

	Não.	Sim, pouco.	Sim, moderadamente.	Sim, muito.
67. Insuficiência de recursos financeiros.	A	B	C	D
68. Inexistência de professores para algumas disciplinas ou séries.	A	B	C	D
69. Carência de pessoal administrativo.	A	B	C	D
70. Carência de pessoal de apoio pedagógico (supervisor, coordenador, orientador educacional).	A	B	C	D
71. Falta de recursos pedagógicos.	A	B	C	D
72. Interrupção das atividades escolares.	A	B	C	D
73. Alto índice de faltas por parte dos professores.	A	B	C	D
74. Alto índice de faltas por parte dos alunos.	A	B	C	D
75. Alta rotatividade do corpo docente.	A	B	C	D
76. Indisciplina por parte dos alunos.	A	B	C	D

Comando das Questões 77 a 80 — **CONSIDERE AS CONDIÇÕES EXISTENTES PARA O EXERCÍCIO DO CARGO DE DIRETOR NESTA ESCOLA:**

	Sim.	Não.
77. Há interferência de atores externos em sua gestão?	A	B
78. Há apoio de instâncias superiores?	A	B
79. Há troca de informações com diretores de outras escolas?	A	B
80. Há apoio da comunidade à sua gestão?	A	B

RECURSOS FINANCEIROS E LIVROS DIDÁTICOS - Gostaríamos de saber as fontes de recursos que contribuem para o funcionamento desta escola e sobre os livros didáticos.

	Sim.	Não.
81. Esta escola recebeu neste ano apoio financeiro do governo federal?	A	B
82. Esta escola recebeu neste ano apoio financeiro do governo estadual?	A	B
83. Esta escola recebeu neste ano apoio financeiro do governo municipal?	A	B
84. Esta escola recebeu neste ano apoio financeiro de empresas ou doadores individuais?	A	B
85. Para a escolha do livro didático, esta escola utilizou o Guia de Livros Didáticos do MEC?	A	B

86. COMO SE DEU A ESCOLHA DO LIVRO DIDÁTICO NESTE ANO?

A Não sei.
B Foi escolhido de forma participativa pelos professores.
C Foi escolhido por somente alguns membros da equipe escolar.
D Foi escolhido por órgãos externos à escola.
E Foi escolhido de outra maneira.

Comando das Questões 87 a 89 — **NESTE ANO, NESTA ESCOLA, OCORRERAM AS SEGUINTES SITUAÇÕES:**

	Sim.	Não.	Não Sei.
87. Os livros chegaram em tempo hábil para o início das aulas.	A	B	C
88. Faltaram livros para os alunos.	A	B	C
89. Os livros escolhidos foram os recebidos.	A	B	C

VIOLÊNCIA NA ESCOLA - Gostaríamos de saber sobre a ocorrência de fatos que afetam a segurança nesta escola.

Comando das Questões 90 a 99 — **SOBRE OS FATOS LISTADOS ABAIXO, DIGA SE ELES ACONTECERAM OU NÃO ESTE ANO, NESTA ESCOLA:**

	Sim.	Não.
90. Agressão verbal ou física de alunos a professores ou funcionários da escola.	A	B
91. Agressão verbal ou física de alunos a outros alunos da escola.	A	B
92. Você foi vítima de atentado à vida.	A	B
93. Você foi ameaçado por algum aluno.	A	B
94. Você foi vítima de furto (sem uso de violência).	A	B
95. Você foi vítima de roubo (com uso de violência).	A	B
96. Alunos frequentaram a escola sob efeito de bebida alcoólica.	A	B
97. Alunos frequentaram a escola sob efeito de drogas ilícitas.	A	B
98. Alunos frequentaram a escola portando arma branca (facas, canivetes etc).	A	B
99. Alunos frequentaram a escola portando arma de fogo.	A	B

Comando das Questões 100 a 108 — **NESTA ESCOLA, HÁ PROJETOS NAS SEGUINTES TEMÁTICAS:**

	Sim.	Não.
100. Violência.	A	B
101. Os malefícios do uso de drogas.	A	B
102. Racismo.	A	B
103. Machismo e homofobia.	A	B
104. Bullying.	A	B
105. Sexualidade e gravidez na adolescência.	A	B
106. Desigualdades sociais.	A	B
107. Diversidade religiosa.	A	B
108. Meio ambiente.	A	B

ENSINO RELIGIOSO - Gostaríamos de saber sobre as atividades de ensino religioso que ocorreram nesta escola.

Comando das Questões 109 a 111 — **NESTA ESCOLA, O ENSINO RELIGIOSO:**

	Não há aula de ensino religioso.	Sim.	Não.
109. É de presença obrigatória.	A	B	C
110. Segue uma religião específica.	A	B	C
111. Nesta escola há atividades alternativas para os estudantes que não queiram participar das aulas de ensino religioso.	A	B	C

SAEB E PROVABRASIL – 2007

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QUESTIONÁRIO ESCOLA

AVALIE O ESTADO DE CONSERVAÇÃO DOS ITENS DO PRÉDIO E CLASSIFIQUE-O COMO ADEQUADO, REGULAR OU INADEQUADO.
(Marque apenas uma opção em cada linha)

ITENS	a) ADEQUADO	b) REGULAR	c) INADEQUADO	d) INEXISTENTE
1. Telhado	( )	( )	( )	( )
2. Paredes	( )	( )	( )	( )
3. Pisos	( )	( )	( )	( )
4. Portas	( )	( )	( )	( )
5. Janelas	( )	( )	( )	( )
6. Banheiros	( )	( )	( )	( )
7. Cozinha	( )	( )	( )	( )
8. Instalações hidráulicas	( )	( )	( )	( )
9. Instalações elétricas	( )	( )	( )	( )

Adequado = bom, **Regular** = necessita de pequena reforma, **Inadequado** = necessita de grande reforma.

AVALIE OS SEGUINTES ASPECTOS EM RELAÇÃO ÀS SALAS DE AULA, MARCANDO SIM OU NÃO.
(Considere SIM quando mais de 50% das salas de aula apresentam o aspecto questionado).

ITENS	a) SIM	b) NÃO
10. São iluminadas? (Observe se a iluminação natural ou artificial garante boa claridade nas salas).	( )	( )
11. São arejadas?	( )	( )

AVALIE O ESTADO DE CONSERVAÇÃO DOS EQUIPAMENTOS ABAIXO DISCRIMINADOS E CLASSIFIQUE-O COMO BOM, REGULAR OU RUIM.

ITENS	a) BOM	b) REGULAR	c) RUIM	d) INEXISTENTE
12. Entrada do prédio	( )	( )	( )	( )
13. Paredes externas	( )	( )	( )	( )
14. Portas	( )	( )	( )	( )
15. Janelas	( )	( )	( )	( )
16. Pátio	( )	( )	( )	( )

ITENS	a) BOM	b) REGULAR	c) RUIM	d) INEXISTENTE
17. Corredores	( )	( )	( )	( )
18. Salas de Aula	( )	( )	( )	( )
19. Banheiros	( )	( )	( )	( )
20. Cozinha	( )	( )	( )	( )

AVALIE OS SEGUINTES ASPECTOS EM RELAÇÃO À SEGURANÇA DA ESCOLA E DOS ALUNOS, MARCANDO SIM OU NÃO.

ITENS	a) SIM	b) NÃO
21. Existem muros, grades ou cercas em condições de garantir a segurança dos alunos? (Caso existam buracos ou aberturas que permitam o acesso de estranhos, responder NÃO.)	( )	( )
22. Existe controle de entrada e saída de alunos?	( )	( )
23. Existe controle de entrada de pessoas estranhas na escola?	( )	( )
24. Os portões que dão acesso à parte externa permanecem trancados durante o horário de funcionamento da escola?	( )	( )
25. Existe algum tipo de vigilância para o período diurno?	( )	( )
26. Existe algum tipo de vigilância para o período noturno?	( )	( )
27. Existe algum tipo de vigilância para finais de semana e feriados?	( )	( )
28. Há algum esquema de policiamento para inibição de furtos, roubos e outras formas de violência?	( )	( )
29. Há algum esquema de policiamento para inibição de tráfico de tóxicos/drogas dentro da escola?	( )	( )
30. Há algum esquema de policiamento para inibição de tráfico de tóxicos/drogas nas imediações da escola?	( )	( )
31. A escola tem algum sistema de proteção contra incêndio (alarme de fumaça e temperatura, extintores contra incêndio, mangueiras etc.)?	( )	( )
32. As salas onde são guardados os equipamentos mais caros (computadores, projetores, televisão, vídeo etc.) têm dispositivos para serem trancadas (cadeados, grades, travas, trancas etc.)?	( )	( )
33. A escola apresenta sinais de depredação (vidros, portas e janelas quebrados, lâmpadas estouradas etc.) ?	( )	( )
34. Existe uma boa iluminação do lado de fora da escola?	( )	( )
35. A escola adota alguma medida de segurança para proteger os alunos nas suas imediações?	( )	( )

INFORME A QUANTIDADE DE COMPUTADORES EXISTENTES NA ESCOLA EM CADA UM DOS CASOS LISTADOS ABAIXO.

ITENS	a) 1 a 5	b) 6 a 10	c) 11 a 15	d) 16 a 20	e) 21 a 30	f) mais de 30
36. Total de computadores na Escola	( )	( )	( )	( )	( )	( )
37. Computadores para uso exclusivo dos alunos	( )	( )	( )	( )	( )	( )
38. Computadores com acesso à Internet para uso exclusivo dos alunos	( )	( )	( )	( )	( )	( )
39. Computadores para uso dos professores	( )	( )	( )	( )	( )	( )
40. Computadores com acesso à Internet para uso dos professores	( )	( )	( )	( )	( )	( )
41.Computadores exclusivamente para uso administrativo	( )	( )	( )	( )	( )	( )

AVALIE O ESTADO DE CONSERVAÇÃO DOS EQUIPAMENTOS ABAIXO DESCRIMINADOS E CLASSIFIQUE-O COMO BOM, REGULAR OU RUIM.

ITENS	a) BOM	b) REGULAR	c) RUIM	d) INEXISTENTE
42. Televisão	( )	( )	( )	( )
43. Antena parabólica	( )	( )	( )	( )
44. Vídeo cassete	( )	( )	( )	( )
45. Máquina fotocopiadora (Xerox)	( )	( )	( )	( )
46. Mimeógrafo	( )	( )	( )	( )
47. Projetor de slides	( )	( )	( )	( )
48. Retroprojetor	( )	( )	( )	( )
49. Máquina de datilografia	( )	( )	( )	( )
50. Impressora	( )	( )	( )	( )
51. Aparelho de som	( )	( )	( )	( )
52. Computador	( )	( )	( )	( )

AVALIE OS SEGUINTES ASPECTOS, MARCANDO SIM OU NÃO.

ITENS	a) SIM	b) NÃO
53. Pichação de muros ou paredes das dependências internas da escola	( )	( )
54. Pichação de muros ou paredes das dependências externas da escola	( )	( )
55. Depredação de banheiros	( )	( )
56. Depredação de dependências internas da escola	( )	( )
57. Depredação de dependências externas da escola	( )	( )

58. QUAL O PERCENTUAL DE ALUNOS QUE UTILIZAM A BIBLIOTECA DURANTE O MÊS? (Perguntar à pessoa responsável.)

( ) a) Até 25%. ( ) b) De 26% a 50%. ( ) c) De 51% a 75%. ( ) d) Mais de 75%. ( ) e) Não há biblioteca na escola.

59. EXISTE UMA PESSOA RESPONSÁVEL PELA BIBLIOTECA (BIBLIOTECÁRIO, PROFESSOR, OUTRA PESSOA)?

( ) a) Sim ( ) b) Não

60. OS PROFESSORES REALIZAM TRABALHOS NA BIBLIOTECA, FAZENDO USO DOS MATERIAIS DISPONÍVEIS?

( ) a) Sempre ou quase sempre. ( ) b) De vez em quando. ( ) c) Nunca ou quase nunca.

61. OS ALUNOS LEVAM LIVROS PARA CASA?

( ) a) Sim. ( ) b) Não, porque não querem. ( ) c) Não, porque a escola não permite.

62. OS PROFESSORES LEVAM LIVROS PARA CASA?

( ) a) Sim. ( ) b) Não, porque não querem. ( ) c) Não, porque a escola não permite.

63. MEMBROS DA COMUNIDADE LEVAM LIVROS PARA CASA?

( ) a) Sim. ( ) b) Não, porque não querem. ( ) c) Não, porque a escola não permite.

AVALIE O ESTADO DE CONSERVAÇÃO DA MAIORIA DOS LIVROS E CLASSIFIQUE-O COMO BOM, REGULAR OU RUIM.

ITENS	a) BOM	b) REGULAR	c) RUIM	d) INEXISTENTE
64. Livros de estudo	( )	( )	( )	( )
65. Livros de literatura (como romance, ficção etc.)	( )	( )	( )	( )
66. Revistas de informação geral (como Veja, IstoÉ, Época etc.)	( )	( )	( )	( )
67. Jornais	( )	( )	( )	( )
68. Revista em quadrinhos	( )	( )	( )	( )

69. COMO VOCÊ AVALIA ESTA ESCOLA, CONSIDERANDO SUA INFRA-ESTRUTURA E CONDIÇÕES GERAIS DE FUNCIONAMENTO?

( ) a) Péssima. ( ) b) Ruim. ( ) c) Razoável ( ) d) Boa ( ) e) Ótima

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DEVE SER PREENCHIDO PELO APLICADOR

( ) a) Escola inexistente ( ) d) Escola inativa por outra causa

( ) b) Escola recusa-se a participar ( ) e) Escola extinta

( ) c) Escola inativa por reforma ( ) f) Outros motivos que impediram a aplicação do questionário

QUESTIONÁRIO ESCOLA

1. AVALIE O ESTADO DE CONSERVAÇÃO DOS ITENS E EQUIPAMENTOS DO PRÉDIO E CLASSIFIQUE-OS COMO ADEQUADO, REGULAR, INADEQUADO OU INEXISTENTE. (Marque apenas UMA opção em cada linha)

ITENS	BOM	REGULAR	RUIM	INEXISTENTE
1.1 Telhado	☐	☐	☐	☐
1.2 Paredes	☐	☐	☐	☐
1.3 Piso	☐	☐	☐	☐
1.4 Entradas do prédio	☐	☐	☐	☐
1.5 Pátio	☐	☐	☐	☐
1.6 Corredores	☐	☐	☐	☐
1.7 Salas de aula	☐	☐	☐	☐
1.8 Portas	☐	☐	☐	☐
1.9 Janelas	☐	☐	☐	☐
1.10 Banheiros	☐	☐	☐	☐
1.11 Cozinha	☐	☐	☐	☐
1.12 Instalações hidráulicas	☐	☐	☐	☐
1.13 Instalações elétricas	☐	☐	☐	☐

Adequado= bom, **Regular** = necessita de pequena reforma, **Inadequado** = necessita de grande reforma

2. AVALIE OS SEGUINTES ASPECTOS EM RELAÇÃO ÀS SALAS DE AULA, MARCANDO SIM OU NÃO.
(Considere SIM quando mais de 50% das salas de aula apresentam o aspecto questionado.)

ITENS	SIM	NÃO
2.1 São iluminadas? (Observe se a iluminação natural ou artificial garante boa claridade nas salas.)	☐	☐
2.2 São arejadas?	☐	☐

3. AVALIE OS SEGUINTES ASPECTOS EM RELAÇÃO À SEGURANÇA DA ESCOLA E DOS ALUNOS, MARCANDO SIM OU NÃO.

ITENS	SIM	NÃO
3.1 Existem muros, grades ou cercas em condições de garantir a segurança dos alunos? (Caso existam buracos ou aberturas que permitam o acesso de estranhos, responder NÃO.)	☐	☐
3.2 Existe controle de entrada e saída de alunos?	☐	☐
3.3 Existe controle de entrada de pessoas estranhas na escola?	☐	☐
3.4 Os portões que dão acesso à parte externa permanecem trancados durante o horário de funcionamento da escola?	☐	☐
3.5 Existe algum tipo de vigilância para o período diurno?	☐	☐
3.6 Existe algum tipo de vigilância para o período noturno?	☐	☐
3.7 Existe algum tipo de vigilância para finais de semana e feriados?	☐	☐
3.8 Há algum esquema de policiamento para inibição de furtos, roubos e outras formas de violência?	☐	☐
3.9 Há algum esquema de policiamento para inibição de tráfico de tóxicos/drogas dentro da escola?	☐	☐
3.10 Há algum esquema de policiamento para inibição de tráfico de tóxicos/drogas nas imediações da escola?	☐	☐
3.11 A escola tem algum sistema de proteção contra incêndio (alarme de fumaça e temperatura, extintores contra incêndio, mangueiras etc.)?	☐	☐
3.12 As salas onde são guardados os equipamentos mais caros (computadores, projetores, televisão, vídeo etc.) têm dispositivos para serem trancadas (cadeados, grades, travas, trancas etc.)?	☐	☐
3.13 A escola apresenta sinais de depredação (vidros, portas e janelas quebrados, lâmpadas estouradas etc.) ?	☐	☐
3.14 Existe uma boa iluminação do lado de fora da escola?	☐	☐
3.15 A escola adota alguma medida de segurança para proteger os alunos nas suas imediações?	☐	☐

4. AVALIE O ESTADO DE CONSERVAÇÃO DOS EQUIPAMENTOS ABAIXO DESCRIMINADOS E CLASSIFIQUE-O COMO BOM, REGULAR OU RUIM.

ITENS	BOM	REGULAR	RUIM	INEXISTENTE
4.1 Televisão	☐	☐	☐	☐
4.2 Antena parabólica	☐	☐	☐	☐
4.3 Videocassete	☐	☐	☐	☐
4.4 Máquina fotocopiadora (xerox)	☐	☐	☐	☐
4.5 Mimeógrafo	☐	☐	☐	☐
4.6 Projetor de *slides*	☐	☐	☐	☐
4.7 Retroprojetor	☐	☐	☐	☐
4.8 Máquina de datilografia	☐	☐	☐	☐
4.9 Impressora	☐	☐	☐	☐
4.10 Aparelho de som	☐	☐	☐	☐
4.11 Telefone	☐	☐	☐	☐
4.12 Aparelho de fax	☐	☐	☐	☐
4.13 Computador	☐	☐	☐	☐

5. INFORME A QUANTIDADE DE COMPUTADORES EXISTENTES NA ESCOLA EM CADA UM DOS CASOS LISTADOS ABAIXO.

ITENS	1 a 5	6 a 10	11 a 15	16 a 20	21 a 30	Mais de 30
5.1 Total de computadores na escola	☐	☐	☐	☐	☐	☐
5.2 Computadores para uso exclusivo dos alunos	☐	☐	☐	☐	☐	☐
5.3 Computadores com acesso à Internet para uso exclusivo dos alunos	☐	☐	☐	☐	☐	☐
5.4 Computadores para uso dos professores	☐	☐	☐	☐	☐	☐
5.5 Computadores com acesso à Internet para uso dos professores	☐	☐	☐	☐	☐	☐
5.6 Computadores exclusivamente para uso administrativo	☐	☐	☐	☐	☐	☐

6. AVALIE OS SEGUINTES ASPECTOS, MARCANDO SIM OU NÃO.

ITENS	SIM	NÃO
6.1 Pichação de muros ou paredes das dependências internas da escola	☐	☐
6.2 Pichação de muros ou paredes das dependências externas da escola	☐	☐
6.3 Depredação de banheiros	☐	☐
6.4 Depredação de dependências internas da escola	☐	☐
6.5 Depredação de dependências externas da escola	☐	☐

7. QUAL O PERCENTUAL DE ALUNOS QUE UTILIZAM A BIBLIOTECA DURANTE O MÊS? (Perguntar à pessoa responsável.)

☐ Até 25%. ☐ De 26% a 50%. ☐ De 51% a 75%. ☐ Mais de 75%. ☐ Não há biblioteca na escola.

8. EXISTE UMA PESSOA RESPONSÁVEL PELA BIBLIOTE CA (BIBLIOTECÁRIO, PROFESSOR, OUTRA PESSOA)?

☐ Sim ☐ Não

9. OS PROFESSORES REALIZAM TRABALHOS NA BIBLIOTECA, FAZENDO USO DOS MATERIAIS DISPONÍVEIS?

☐ Sempre ou quase sempre. ☐ De vez em quando. ☐ Nunca ou quase nunca.

10. OS ALUNOS LEVAM LIVROS PARA CASA?

☐ Sim. ☐ Não, porque não querem. ☐ Não, porque a escola não permite.

11. OS PROFESSORES LEVAM LIVROS PARA CASA?

☐ Sim. ☐ Não, porque não querem. ☐ Não, porque a escola não permite.

12. MEMBROS DA COMUNIDADE LEVAM LIVROS PARA CASA?

☐ Sim. ☐ Não, porque não querem. ☐ Não, porque a escola não permite.

13. AVALIE O ESTADO DE CONSERVAÇÃO DA MAIORIA DOS LIVROS E CLASSIFIQUE-O COMO BOM, REGULAR OU RUIM.

ITENS	BOM	REGULAR	RUIM	INEXISTENTE
13.1 Livros de estudo	☐	☐	☐	☐
13.2 Livros de literatura (como romance, ficção etc.)	☐	☐	☐	☐
13.3 Revistas de informação geral (como Veja, Isto É, Época etc.)	☐	☐	☐	☐
13.4 Jornais	☐	☐	☐	☐
13.5 Revistas em quadrinhos	☐	☐	☐	☐

14. COMO VOCÊ AVALIA ESTA ESCOLA, CONSIDERANDO SUA INFRAESTRUTURA E CONDIÇÕES GERAIS DE FUNCIONAMENTO?

☐ Péssima. ☐ Ruim. ☐ Razoável. ☐ Boa. ☐ Ótima.

DEVE SER PREENCHIDO SOMENTE PELO APLICADOR

☐ Escola inexistente.	☐ Escola inativa por outra causa.
☐ Escola recusa-se a participar.	☐ Escola extinta.
☐ Escola inativa por reforma.	☐ Outros motivos que impediram a aplicação do questionário.

SAEB

Prova Brasil 2011

Avaliação do Rendimento Escolar

PLANO DE DESENVOLVIMENTO DA EDUCAÇÃO

QUESTIONÁRIO DA ESCOLA

Escola:
Xxxxxxxxx Xxxxxx xx Xxxxxxxxxxxxxxxxxx xx Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Município/UF:
Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx xx Xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx/XX

Dependência administrativa:
Xxxxxxxxxxxxxxxx Xxxxxxxxxxxxxxxxxxxxxxxxx

CASO VOCÊ NÃO TENHA REALIZADO A APLICAÇÃO DO SAEB/PROVA BRASIL NESTA ESCOLA, INDIQUE O MOTIVO:

① Escola inexistente.
② Escola recusa-se a participar.
③ Escola inativa por reforma.
④ Escola inativa por outra causa.
⑤ Escola extinta.
⑥ Outro – Qual? _____

ATENÇÃO APLICADOR. Se você respondeu **SIM** a um dos quesitos de 1 a 6 **NÃO** preencha o restante do questionário.

AVALIE O ESTADO DE CONSERVAÇÃO DOS ITENS E EQUIPAMENTOS DO PRÉDIO: (Considere **Bom** = em bom estado de conservação, **Regular** = necessita de pequena reforma, **Ruim** = necessita de grande reforma)**(Marque apenas UMA opção em cada linha).**

	BOM	REGULAR	RUIM	INEXISTENTE
7. Telhado	A	B	C	D
8. Paredes	A	B	C	D
9. Piso	A	B	C	D
10. Entrada do Prédio	A	B	C	D
11. Pátio	A	B	C	D
12. Corredores	A	B	C	D
13. Salas de Aula	A	B	C	D
14. Portas	A	B	C	D
15. Janelas	A	B	C	D
16. Banheiros	A	B	C	D
17. Cozinha	A	B	C	D
18. Instalações hidráulicas	A	B	C	D
19. Instalações elétricas	A	B	C	D

AVALIE OS SEGUINTES ASPECTOS EM RELAÇÃO ÀS SALAS DE AULA: (Considere SIM quando mais de 50% das salas de aula apresentarem o aspecto questionado)

	SIM	NÃO
20. São iluminadas? (Observe se a iluminação natural ou artificial garante boa claridade no interior das salas.)	A	B
21. São arejadas?	A	B

INEP Ministério da Educação GOVERNO FEDERAL BRASIL PAÍS RICO É PAÍS SEM POBREZA

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Manufatura Preto Pant LR Pant RED DV

Cliente: Folha de Resposta Escola	Lar .(mm) 210	Alt .(") 12"	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
X NOVO ☐ Rep.Alt.OF.: . . . . - .			PF:	. . . .	Todas via(s)

AVALIE OS SEGUINTES ASPECTOS EM RELAÇÃO À SEGURANÇA DA ESCOLA E DOS ALUNOS:

	SIM	NÃO
22. Há muros, grades ou cercas em condições de garantir a segurança dos alunos? (Caso existam buracos ou aberturas que permitam o acesso de estranhos, responder NÃO.)	A	B
23. Há controle de entrada e saída de alunos?	A	B
24. Há controle de entrada de pessoas estranhas na escola?	A	B
25. Os portões que dão acesso à parte externa permanecem trancados durante o horário de funcionamento da escola?	A	B
26. Há algum tipo de vigilância para o período diurno?	A	B
27. Há algum tipo de vigilância para o período noturno?	A	B
28. Há algum tipo de vigilância para os finais de semana e feriados?	A	B
29. Há algum esquema de policiamento para inibição de furtos, roubos e outras formas de violência?	A	B
30. Há algum esquema de policiamento para inibição de tráfico de tóxicos/drogas dentro da escola?	A	B
31. Há algum esquema de policiamento para inibição de tráfico de tóxicos/drogas nas imediações da escola?	A	B
32. A escola possui algum sistema de proteção contra incêndio (alarme de fumaça e temperatura, extintores contra incêndio dentro do prazo de validade, mangueiras etc.)?	A	B
33. As salas onde são guardados os equipamentos mais caros (computadores, projetores, televisão, vídeo etc.) possuem dispositivos para serem trancadas (cadeados, grades, travas, trancas etc.)?	A	B
34. A escola apresenta sinais de depredação (vidros, portas e janelas quebrados, lâmpadas estouradas etc.)?	A	B
35. Há uma boa iluminação do lado de fora da escola?	A	B
36. A escola adota alguma medida de segurança para proteger os alunos nas suas imediações?	A	B

INDIQUE SE NESTA ESCOLA EXISTEM OU NÃO OS RECURSOS APONTADOS E QUAIS SÃO SUAS CONDIÇÕES DE USO. (Considere **Bom** = em bom estado de conservação, **Regular** = necessita de pequena reforma, **Ruim** = necessita de grande reforma) (Marque apenas UMA opção em cada linha)

	BOM	REGULAR	RUIM	INEXISTENTE
37. Computadores para uso dos alunos.	A	B	C	D
38. Acesso à Internet para uso dos alunos.	A	B	C	D
39. Computadores para uso dos professores.	A	B	C	D
40. Acesso à Internet para uso dos professores.	A	B	C	D
41. Computadores exclusivamente para uso administrativo.	A	B	C	D
42. Fitas de vídeo ou DVD (educativas).	A	B	C	D
43. Fitas de vídeo ou DVD (lazer).	A	B	C	D
44. Máquina copiadora.	A	B	C	D
45. Impressora.	A	B	C	D
46. Retroprojetor.	A	B	C	D
47. Projetor de slides.	A	B	C	D
48. Videocassete ou DVD.	A	B	C	D
49. Televisão.	A	B	C	D
50. Mimeógrafo.	A	B	C	D
51. Câmera fotográfica.	A	B	C	D
52. Antena parabólica.	A	B	C	D
53. Linha telefônica.	A	B	C	D
54. Aparelho de fax.	A	B	C	D
55. Aparelho de som.	A	B	C	D
56. Biblioteca.	A	B	C	D
57. Quadra de esportes.	A	B	C	D
58. Laboratório.	A	B	C	D
59. Auditório.	A	B	C	D
60. Sala para atividades de música.	A	B	C	D
61. Sala para atividades de artes plásticas.	A	B	C	D
62. Sala de leitura.	A	B	C	D

EM RELAÇÃO À BIBLIOTECA OU SALA DE LEITURA:

	SIM	NÃO
63. Possui acervo diversificado que desperte o interesse dos alunos.	A	B
64. Possui brinquedoteca.	A	B
65. Possui espaço para estudos coletivos.	A	B
66. Os livros podem ser manuseados e emprestados.	A	B
67. A comunidade pode utilizar o espaço e os livros.	A	B
68. O espaço é arejado e bem iluminado.	A	B

69. Existe uma pessoa responsável pelo atendimento na biblioteca ou na sala de leitura?

A Sim. B Não. C Não há biblioteca.

OS USUÁRIOS DA BIBLIOTECA (OU SALA DE LEITURA) LEVAM LIVROS PARA CASA?

	Sim	Não, porque não querem	Não, porque a escola não permite
70. Os alunos.	A	B	C
71. Os professores.	A	B	C
72. Os membros da comunidade.	A	B	C

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Manufatura Preto Pant LR Pant RED DV

Cliente: Folha de Resposta Escola	Lar .(mm) 210	Alt .(") 12"	RS: . . . - . . .	Filial	DE p/ a - - - da(s)
X NOVO Rep.Alt.OF.: . . . . - .			PF:	. . . .	Todas via(s)

Sistema de Avaliação da Educação Básica

SAEB 2013

PLANO DE DESENVOLVIMENTO DA EDUCAÇÃO

QUESTIONÁRIO DA ESCOLA

Escola:
Xxxxxxxxxxxx xx Xxxxxxxxxxxxxxxx Xxxxxxxxxxxx

Município/UF:
Xxxxxxxxxxxx xx Xxxxxxxxxxxxxxxx/UF

Dependência administrativa:
Xxxxxxxxxxx

CASO VOCÊ NÃO TENHA REALIZADO A APLICAÇÃO DO SAEB/PROVA BRASIL NESTA ESCOLA, INDIQUE O MOTIVO:

① Escola inexistente.
② Escola recusa-se a participar.
③ Escola inativa por reforma.
④ Escola inativa por outra causa.
⑤ Escola extinta.
⑥ Outro – Qual? _____

ATENÇÃO APLICADOR. Se você marcou alguma das alternativas acima (de 1 a 6), **NÃO** preencha o restante do questionário.

AVALIE O ESTADO DE CONSERVAÇÃO DOS ITENS E EQUIPAMENTOS DO PRÉDIO:
(Considere **Bom** = em bom estado de conservação, **Regular** = necessita de pequena reforma, **Ruim** = necessita de grande reforma.)

	Bom.	Regular.	Ruim.	Inexistente.		Bom.	Regular.	Ruim.	Inexistente.
7. Telhado.	A	B	C	D	**14.** Portas.	A	B	C	D
8. Paredes.	A	B	C	D	**15.** Janelas.	A	B	C	D
9. Piso.	A	B	C	D	**16.** Banheiros.	A	B	C	D
10. Entrada do Prédio.	A	B	C	D	**17.** Cozinha.	A	B	C	D
11. Pátio.	A	B	C	D	**18.** Instalações hidráulicas.	A	B	C	D
12. Corredores.	A	B	C	D	**19.** Instalações elétricas.	A	B	C	D
13. Salas de Aula.	A	B	C	D					

AVALIE A QUANTIDADE DE SALAS DE AULA QUE ATENDEM AOS SEGUINTES CRITÉRIOS:

	Todas.	Mais da metade.	Menos da metade.	Nenhuma.
20. São iluminadas de forma adequada. (Observe se a iluminação natural ou artificial garante boa claridade no interior das salas.)	A	B	C	D
21. São arejadas de forma adequada.	A	B	C	D

AVALIE OS SEGUINTES ASPECTOS EM RELAÇÃO À SEGURANÇA DA ESCOLA E DOS ALUNOS:

	Bom.	Regular.	Ruim.	Inexistente.
22. Controle de entrada e saída de alunos.	A	B	C	D
23. Controle de entrada de pessoas estranhas na escola.	A	B	C	D
24. Vigilância para o período diurno.	A	B	C	D
25. Vigilância para o período noturno.	A	B	C	D
26. Vigilância para os finais de semana e feriados.	A	B	C	D
27. Esquema de policiamento para inibição de furtos, roubos e outras formas de violência.	A	B	C	D
28. Esquema de policiamento para inibição de tráfico de tóxicos/drogas dentro da escola.	A	B	C	D
29. Esquema de policiamento para inibição de tráfico de tóxicos/drogas nas imediações da escola.	A	B	C	D
30. Sistema de proteção contra incêndio (alarme de fumaça e temperatura, extintores contra incêndio dentro do prazo de validade, mangueiras etc).	A	B	C	D
31. Iluminação do lado de fora da escola.	A	B	C	D

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AVALIE OS SEGUINTES ASPECTOS EM RELAÇÃO À SEGURANÇA DA ESCOLA E DOS ALUNOS: (CONTINUAÇÃO)

	Sim.	Não.
32. Há muros, grades ou cercas em condições de garantir a segurança dos alunos? (Caso existam buracos ou aberturas que permitam o acesso de estranhos, responder NÃO.)	A	B
33. Os equipamentos mais caros (computadores, projetores, televisão, vídeo etc.) são guardados em salas seguras ou possuem mecanismos de proteção (cadeados, grades, travas, trancas etc.)?	A	B
34. Os portões que dão acesso à parte externa permanecem trancados durante o horário de funcionamento da escola?	A	B
35. A escola adota alguma medida de segurança para proteger os alunos nas suas imediações?	A	B

	Sim, muita.	Sim, pouca.	Não.
36. A escola apresenta sinais de depredação (vidros, portas e janelas quebradas, lâmpadas estouradas etc.)?	A	B	C

INDIQUE SE NESTA ESCOLA EXISTEM OU NÃO OS RECURSOS APONTADOS E QUAIS SÃO SUAS CONDIÇÕES DE USO.

(Considere **Bom** = em bom estado de conservação; **Regular** = necessita de pequeno reparo; **Ruim** = necessita de grande reparo.)

	Bom.	Regular.	Ruim.	Inexistente.		Bom.	Regular.	Ruim.	Inexistente.
37. Computadores para uso dos alunos.	A	B	C	D	**47.** Projetor de slides/datashow.	A	B	C	D
38. Acesso à Internet para uso dos alunos.	A	B	C	D	**48.** Videocassete ou aparelho de DVD.	A	B	C	D
39. Computadores para uso dos professores.	A	B	C	D	**49.** Televisão.	A	B	C	D
40. Acesso à Internet para uso dos professores.	A	B	C	D	**50.** Mimeógrafo.	A	B	C	D
41. Computadores exclusivamente para uso administrativo.	A	B	C	D	**51.** Câmera fotográfica.	A	B	C	D
42. Fitas de vídeo ou DVD (educativas).	A	B	C	D	**52.** Antena parabólica.	A	B	C	D
43. Fitas de vídeo ou DVD (lazer).	A	B	C	D	**53.** Internet com conexão Banda Larga.	A	B	C	D
44. Máquina copiadora.	A	B	C	D	**54.** Linha telefônica.	A	B	C	D
45. Impressora.	A	B	C	D	**55.** Aparelho de fax.	A	B	C	D
46. Retroprojetor.	A	B	C	D	**56.** Aparelho de som.	A	B	C	D

INDIQUE A EXISTÊNCIA E AS CONDIÇÕES DE USO DOS SEGUINTES ESPAÇOS DA ESCOLA:

(Considere **Bom** = em bom estado de conservação; **Regular** = necessita de pequena reforma; **Ruim** = necessita de grande reforma.)

	Bom.	Regular.	Ruim.	Inexistente.
57. Biblioteca.	A	B	C	D
58. Sala de leitura.	A	B	C	D
59. Quadra de esportes.	A	B	C	D
60. Laboratório de informática.	A	B	C	D
61. Laboratório de Ciências.	A	B	C	D
62. Auditório.	A	B	C	D
63. Sala para atividades de música.	A	B	C	D
64. Sala para atividades de artes plásticas.	A	B	C	D

EM RELAÇÃO À BIBLIOTECA OU SALA DE LEITURA:

	Sim.	Não.	Não há biblioteca/ sala de leitura.
65. Possui acervo diversificado que desperte o interesse dos alunos.	A	B	C
66. Possui brinquedoteca.	A	B	C
67. Possui espaço para estudos coletivos.	A	B	C
68. Os livros podem ser manuseados e emprestados.	A	B	C
69. A comunidade pode utilizar o espaço e os livros.	A	B	C
70. O espaço é arejado e bem iluminado.	A	B	C
71. Existe uma pessoa responsável pelo atendimento na biblioteca ou na sala de leitura.	A	B	C

OS SEGUINTES USUÁRIOS DA BIBLIOTECA (OU SALA DE LEITURA) LEVAM LIVROS PARA CASA:

72. Os alunos:
- A Sim.
- B Não, porque não querem.
- C Não, porque a escola não permite.
- D Não há biblioteca/sala de leitura.

73. Os professores:
- A Sim.
- B Não, porque não querem.
- C Não, porque a escola não permite.
- D Não há biblioteca/sala de leitura.

74. Os membros da comunidade:
- A Sim.
- B Não, porque não querem.
- C Não, porque a escola não permite.
- D Não há biblioteca/sala de leitura.



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Appendix II: Examples of Grade 4/5 and Grade 8/9 Portuguese Assessment Questions

O disfarce dos bichos

Você já tentou pegar um galhinho seco e ele virou bicho, abriu asas e voou? Se isso aconteceu é porque o graveto era um inseto conhecido como "bicho-pau". Ele é tão parecido com o galhinho, que pode ser confundido com o graveto.

Existem lagartas que se parecem com raminhos de plantas. E há grilos que imitam folhas.

Muitos animais ficam com a cor e a forma dos lugares em que estão. Eles fazem isso para se defender dos inimigos ou capturar outros bichos que servem de alimento.

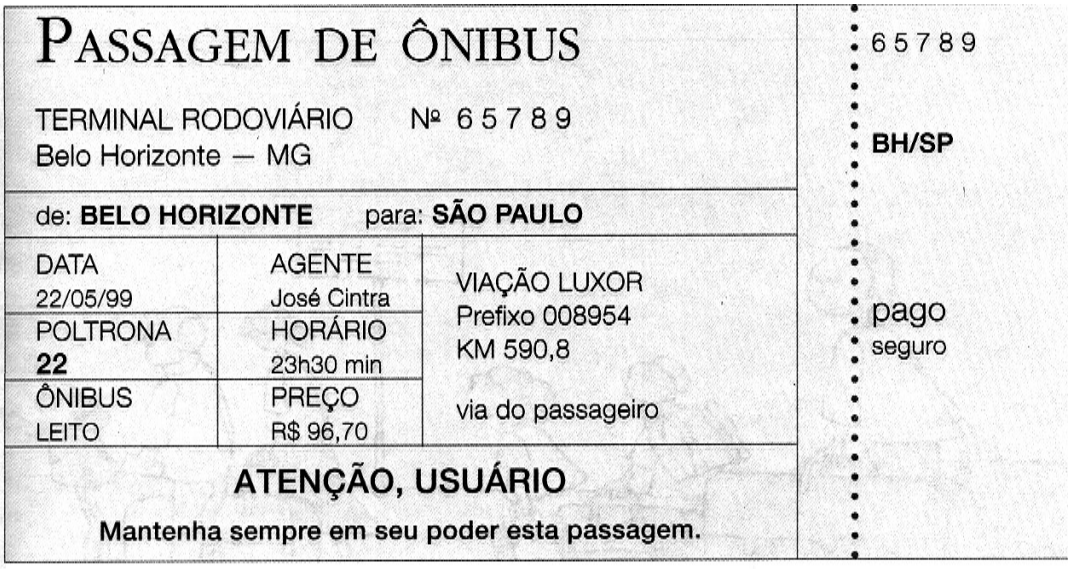
Esses truques são chamados de **mimetismo**, isto é, imitação.

O cientista inglês Henry Walter Bates foi quem descobriu o mimetismo. Ele passou 11 anos na selva amazônica estudando os animais.

MAVIAEL MONTEIRO, JOSÉ. Bichos que usam disfarces para defesa. Folhinha, 6 nov. 1993. Suplemento infantil do jornal Folha de São Paulo. Adaptado pelas autoras. In:HELENA, Maria; Bernadette. **Novo Tempo: Português**. São Paulo: Scipione, 1999. v. 1, p. 31.

O bicho-pau se parece com

(A) florzinha seca.
(B) folhinha verde.
(C) galhinho seco.
(D) raminho de planta.



PASSAGEM DE ÔNIBUS

TERMINAL RODOVIÁRIO Nº 65789
Belo Horizonte — MG

de: **BELO HORIZONTE** para: **SÃO PAULO**

DATA 22/05/99	AGENTE José Cintra	VIAÇÃO LUXOR Prefixo 008954 KM 590,8
POLTRONA **22**	HORÁRIO 23h30 min	
ÔNIBUS LEITO	PREÇO R$ 96,70	via do passageiro

ATENÇÃO, USUÁRIO

Mantenha sempre em seu poder esta passagem.

65789

BH/SP

pago
seguro

O passageiro vai iniciar a viagem

(A) à noite.
(B) à tarde.
(C) de madrugada.
(D) pela manhã.

Chapeuzinho Amarelo

Era a Chapeuzinho amarelo
Amarelada de medo.
Tinha medo de tudo, aquela Chapeuzinho.
Já não ria.
Em festa não aparecia.
Não subia escada
nem descia.
Não estava resfriada,
mas tossia.
Ouvia conto de fada e estremecia.
Não brincava mais de nada,
nem amarelinha.
Tinha medo de trovão.
Minhoca, pra ela, era cobra.
E nunca apanhava sol,
porque tinha medo de sombra.
Não ia pra fora pra não se sujar.
Não tomava banho pra não descolar.
Não falava nada pra não engasgar.
Não ficava em pé com medo de cair.
Então vivia parada,
Deitada, mas sem dormir,
Com medo de pesadelo.

HOLLANDA, Chico Buarque de. In: *Literatura comentada.* São Paulo: Abril Cultural, 1980.

O texto trata de uma menina que

(A) brincava de amarelinha.
(B) gostava de festas.
(C) subia e descia escadas.
(D) tinha medo de tudo.

Texto I

Os cerrados

Essas terras planas do planalto central escondem muitos riachos, rios e cachoeiras. Na verdade, o cerrado é o berço das águas. Essas águas brotam das nascentes de brejos ou despencam de paredões de pedra. Em várias partes do cerrado brasileiro existem *canyons* com cachoeiras de mais de cem metros de altura!

SALDANHA, P. *Os cerrados*. Rio de Janeiro: Ediouro, 2000.

Texto II

Os Pantanais

O homem pantaneiro é muito ligado à terra em que vive. Muitos moradores não pretendem sair da região. E não é pra menos: além das paisagens e do mais lindo pôr-do-sol do Brasil Central, o Pantanal é um santuário de animais selvagens. Um morador do Pantanal do rio Cuiabá, olhando para um bando de aves, voando sobre veados e capivaras, exclamou: “O Pantanal parece com o mundo no primeiro dia da criação.”

SALDANHA, P. *Os pantanais*. Rio de Janeiro: Ediouro, 1995.

Os dois textos descrevem

(A) belezas naturais do Brasil Central.
(B) animais que habitam os pantanais.
(C) problemas que afetam os cerrados.
(D) rios e cachoeiras de duas regiões.

O IMPÉRIO DA VAIDADE

Você sabe por que a televisão, a publicidade, o cinema e os jornais defendem os músculos torneados, as vitaminas milagrosas, as modelos longilíneas e as academias de ginástica? Porque tudo isso dá dinheiro. Sabe por que ninguém fala do afeto e do respeito entre duas pessoas comuns, mesmo meio gordas, um pouco feias, que fazem piquenique na praia? Porque isso não dá dinheiro para os negociantes, mas dá prazer para os participantes.

O prazer é físico, independentemente do físico que se tenha: namorar, tomar *milk-shake,* sentir o sol na pele, carregar o filho no colo, andar descalço, ficar em casa sem fazer nada. Os melhores prazeres são de graça − a conversa com o amigo, o cheiro do jasmim, a rua vazia de madrugada −, e a humanidade sempre gostou de conviver com eles. Comer uma feijoada com os amigos, tomar uma caipirinha no sábado também é uma grande pedida. Ter um momento de prazer é compensar muitos momentos de desprazer. Relaxar, descansar, despreocupar-se, desligar-se da competição, da áspera luta pela vida − isso é prazer.

Mas vivemos num mundo onde relaxar e desligar-se se tornou um problema. O prazer gratuito, espontâneo, está cada vez mais difícil. O que importa, o que vale, é o prazer que se compra e se exibe, o que não deixa de ser um aspecto da competição. Estamos submetidos a uma cultura atroz, que quer fazer-nos infelizes, ansiosos, neuróticos. As filhas precisam ser Xuxas, as namoradas precisam ser modelos que desfilam em Paris, os homens não podem assumir sua idade.

Não vivemos a ditadura do corpo, mas seu contrário: um massacre da indústria e do comércio. Querem que sintamos culpa quando nossa silhueta fica um pouco mais gorda, não porque querem que sejamos mais saudáveis − mas porque, se não ficarmos angustiados, não faremos mais regimes, não compraremos mais produtos dietéticos, nem produtos de beleza, nem roupas e mais roupas. Precisam da nossa impotência, da nossa insegurança, da nossa angústia.

O único valor coerente que essa cultura apresenta é o narcisismo.

LEITE, Paulo Moreira. *O império da vaidade*. *Veja,* 23 ago. 1995. p. 79.

O autor pretende influenciar os leitores para que eles

(A) evitem todos os prazeres cuja obtenção depende de dinheiro.

(B) excluam de sua vida todas as atividade incentivadas pela mídia.

(C) fiquem mais em casa e voltem a fazer os programas de antigamente.

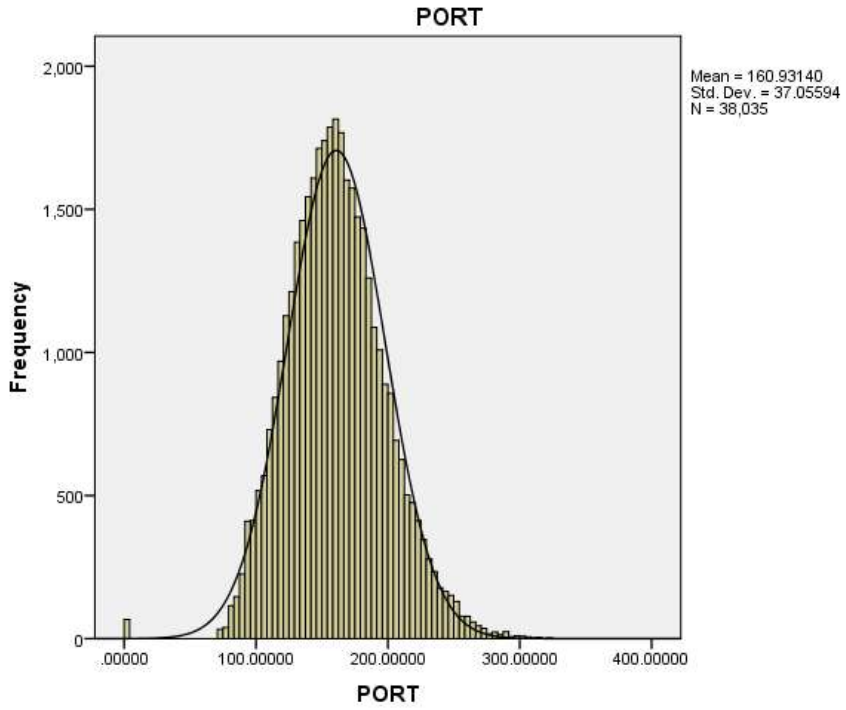
(D) sejam mais críticos em relação ao incentivo do consumo pela mídia.

Appendix III: Descriptive Statistics for Grade 4/5 and Grade 8/9 Students' Prova Brasil Portuguese Scores 2007-2013

Grade 4 Portuguese Prova Brasil Scores 2007

Descriptive Statistics

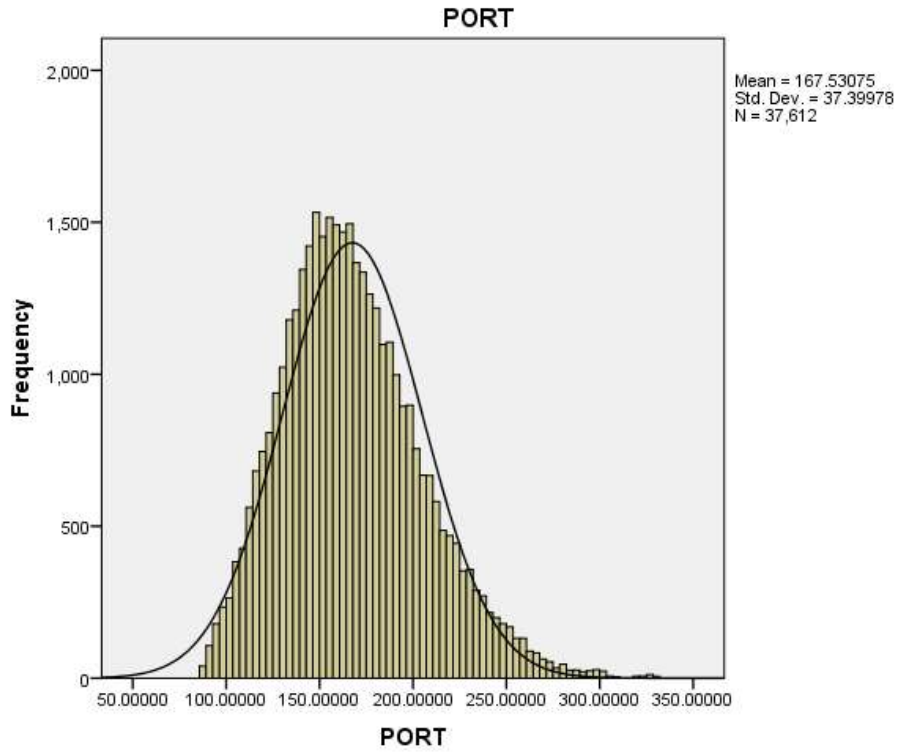
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PORT	38035	.00000	324.32220	160.9314039	37.05594342	.247	.013	.607	.025
Valid N (listwise)	38035								



Grade 5 Portuguese Prova Brasil Scores 2009

Descriptive Statistics

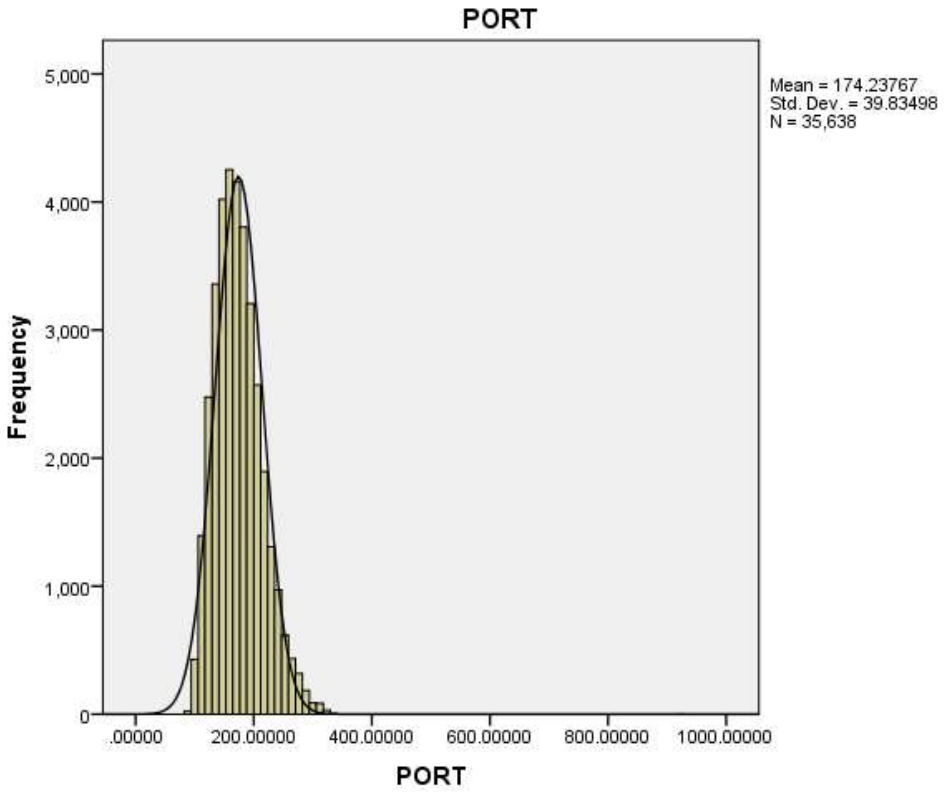
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PORT	37612	87.12977	331.29330	167.5307545	37.39977735	.571	.013	.348	.025
Valid N (listwise)	37612								



Grade 5 Portuguese Prova Brasil Scores 2011

Descriptive Statistics

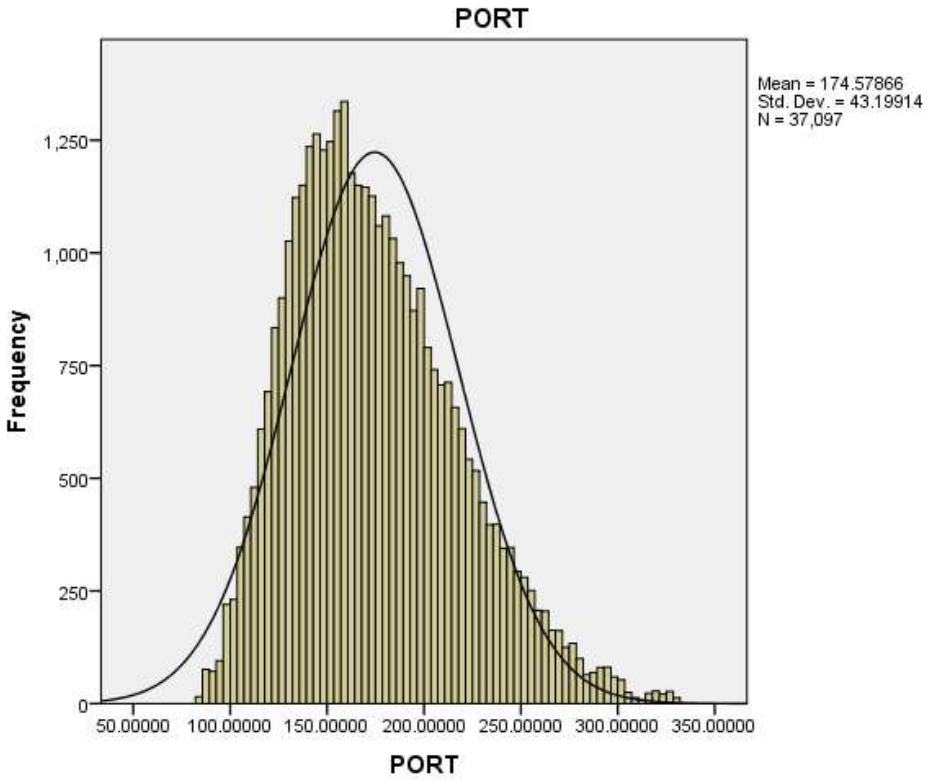
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PORT	35638	87.39373	925.43640	174.2376664	39.83498164	.813	.013	3.807	.026
Valid N (listwise)	35638								



Grade 5 Portuguese Prova Brasil Scores 2013

Descriptive Statistics

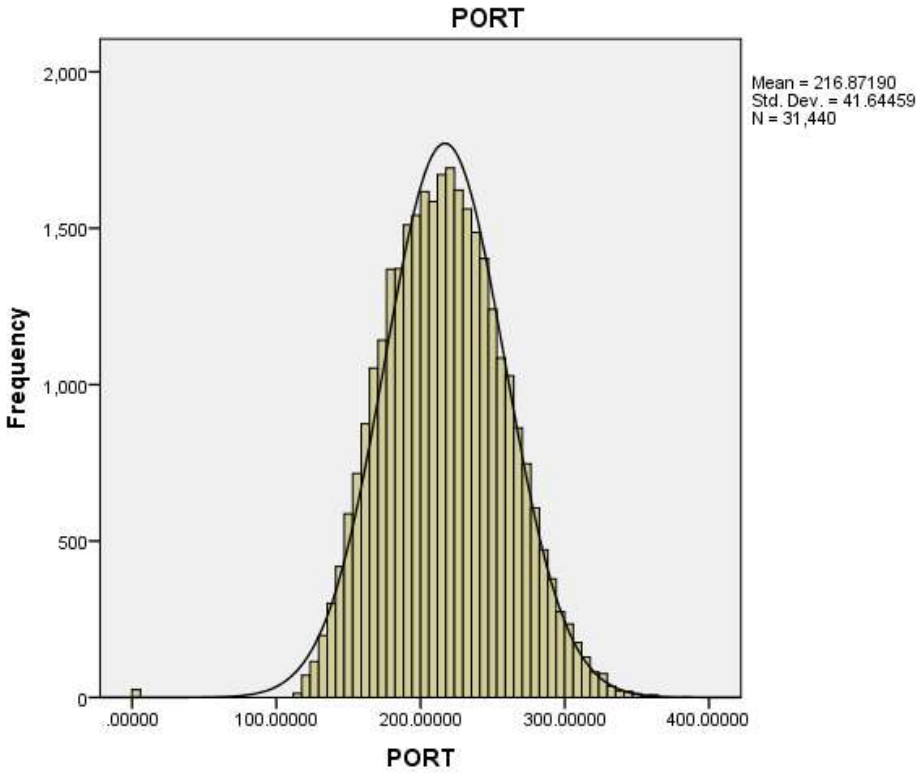
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PORT	37097	84.89470	330.68839	174.5786555	43.19914125	.598	.013	.064	.025
Valid N (listwise)	37097								



Grade 8 Portuguese Prova Brasil Scores 2007

Descriptive Statistics

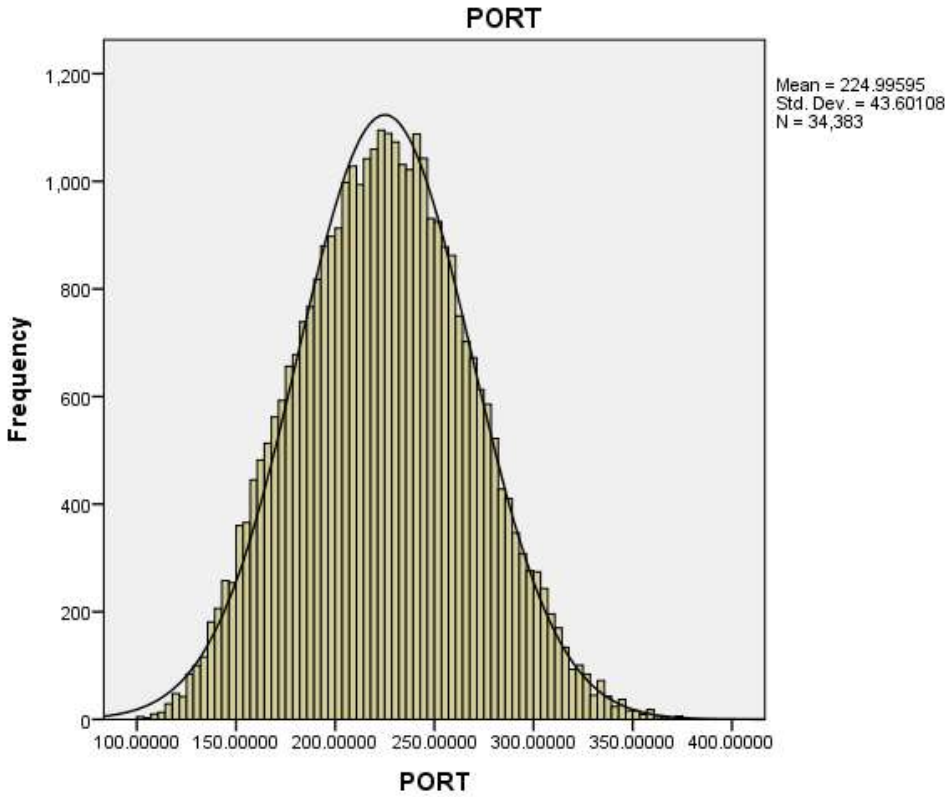
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PORT	31440	.00000	384.80790	216.8719029	41.64459366	.086	.014	.139	.028
Valid N (listwise)	31440								



Grade 9 Portuguese Prova Brasil Scores 2009

Descriptive Statistics

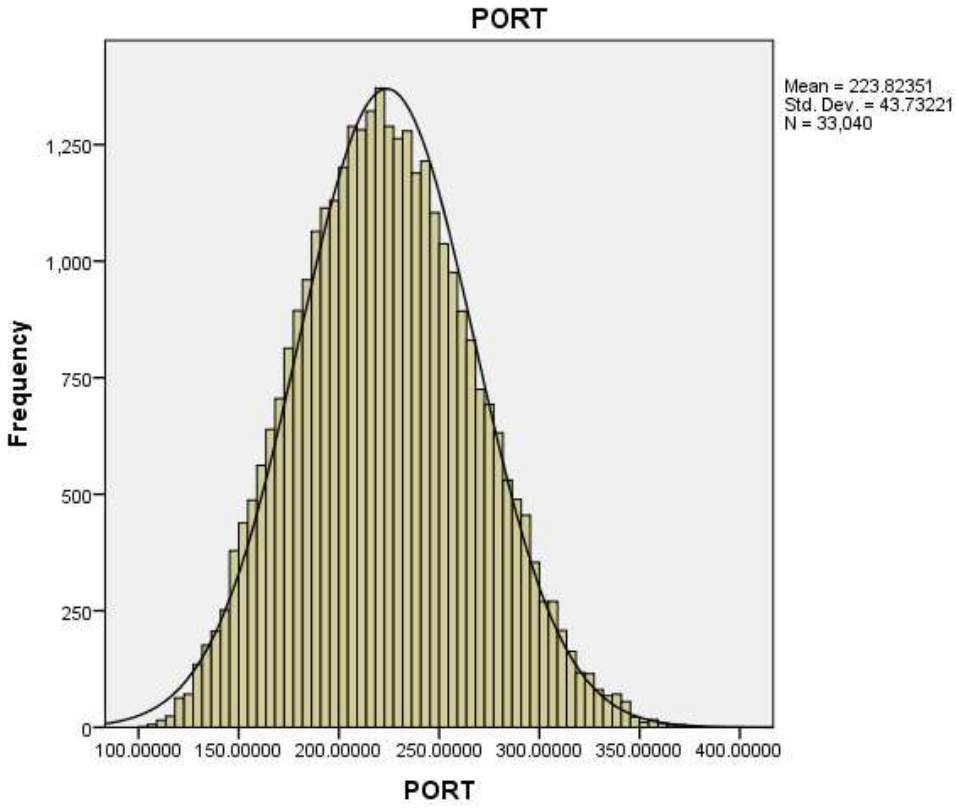
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PORT	34383	100.55688	373.00812	224.9959518	43.60107642	.094	.013	-.317	.026
Valid N (listwise)	34383								



Grade 9 Portuguese Prova Brasil Scores 2011

Descriptive Statistics

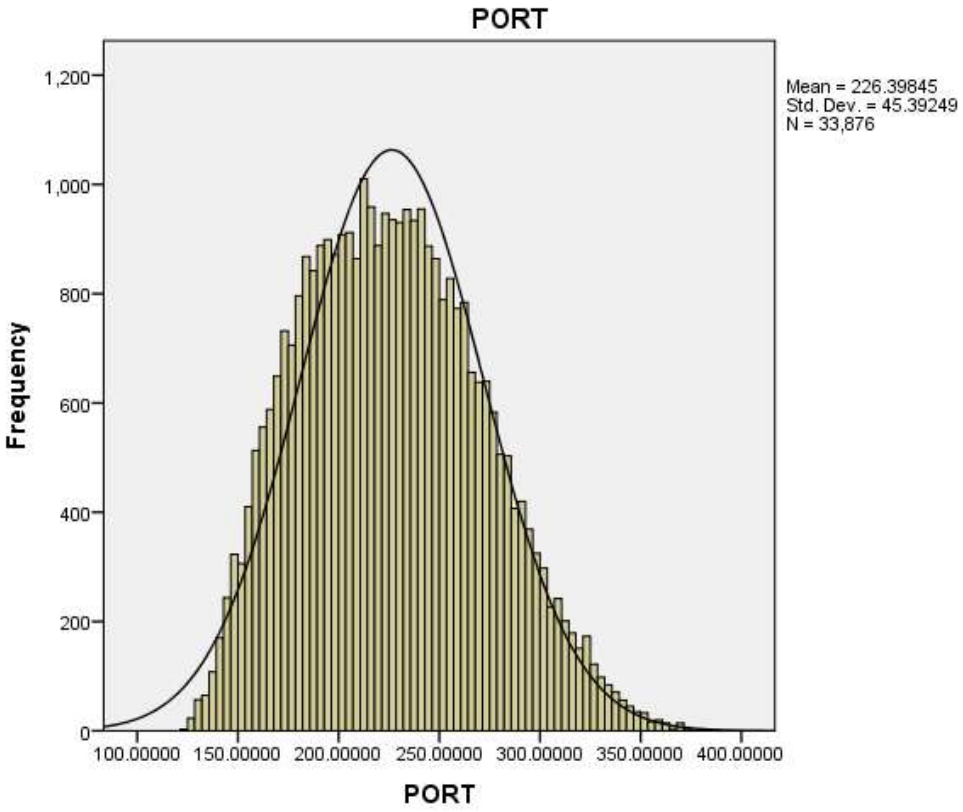
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PORT	33040	103.46342	380.83481	223.8235074	43.73221179	.162	.013	-.307	.027
Valid N (listwise)	33040								



Grade 9 Portuguese Prova Brasil Scores 2013

Descriptive Statistics

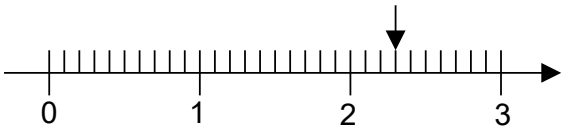
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
PORT	33876	124.00206	379.15579	226.3984524	45.39248593	.272	.013	-.461	.027
Valid N (listwise)	33876								



Appendix IV: Examples of Grade 4/5 and Grade 8/9 Mathematics Assessment Questions

000 IT_023672

O número decimal correspondente ao ponto assinalado na reta numérica é

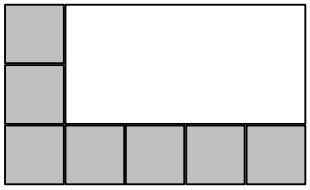


(A) 0,3
(B) 0,23
(C) 2,3
(D) 2,03

---

000 IT_025075

O piso de uma sala está sendo coberto por cerâmica quadrada. Já foram colocadas 7 cerâmicas, como mostra a figura:



Quantas cerâmicas faltam para cobrir o piso?

(A) 6
(B) 7
(C) 8
(D) 15

---

000 IT_025078

O carro de João consome 1 litro de gasolina a cada 10 quilômetros percorridos. Para ir da sua casa ao sítio, que fica distante 63 quilômetros, o carro consome

(A) 5,3 ℓ.
(B) 6 ℓ.
(C) 6,3 ℓ.
(D) 7 ℓ.

A professora de 4ª série, corrigindo as avaliações da classe, viu que Pedro acertou $\frac{2}{10}$ das questões. De que outra forma a professora poderia representar essa fração?

(A) 0,02
(B) 0,10
(C) 0,2
(D) 2,10

---

000 IT_033236

Uma professora ganhou ingressos para levar 50% de seus alunos ao circo da cidade. Considerando que essa professora leciona para 36 alunos, quantos alunos ela poderá levar?

(A) 9
(B) 18
(C) 24
(D) 36

---

000 IT_033315

Maria, limpando a sua bolsa, encontrou as seguintes notas e moedas:



Quantos reais ela tinha na sua bolsa?

(A) R$ 9,00
(B) R$ 9,90

(C) R$ 10,10

(D) R$ 10,15

---

000 IT_036812

Numa gincana, as equipes deveriam recolher latinhas de alumínio. Uma equipe recolheu 5 sacos de 100 latinhas cada e outra equipe recolheu 3 sacos de 50 latinhas cada. Quanta latinhas foram recolhidas ao todo?

(A) 100

(B) 150

(C) 500

(D) 650

---

000 IT_038248

No número 10.060, o algarismo 6 ocupa a ordem da

(A) Centena simples

(B) Dezena simples

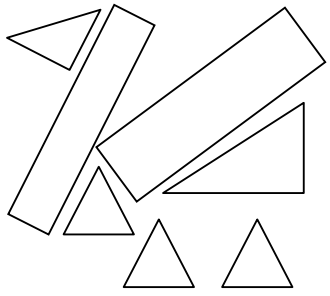
(C) Unidade simples

(D) Dezena de milhar

---

000 IT_039148

Sheila usou linhas retas fechadas para fazer este desenho.



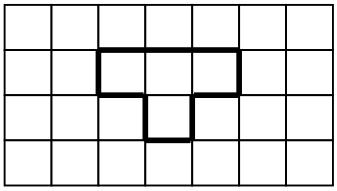
Quantas figuras de quatro lados foram desenhadas?

(A) 2
(B) 3
(C) 4
(D) 5

---

000 IT_040853

A parte destacada na malha quadriculada abaixo representa uma figura na bandeira da escola de João. Cada lado do quadradinho mede 1 metro.



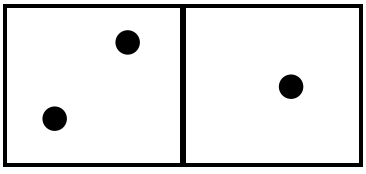
Quantos metros de fita serão necessários para contornar essa figura?

(A) 4
(B) 6
(C) 8
(D) 10

---

000 IT_043501

A face superior das peças de um jogo de dominó tem formato de um quadrilátero. Observe um exemplo:



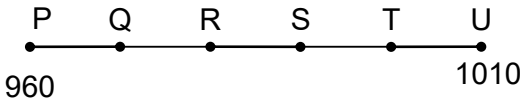
Qual o quadrilátero que melhor caracteriza a face superior da peça de um jogo de dominó?

(A) Trapézio
(B) Quadrado
(C) Retângulo
(D) Losango

---

000 IT_043630

Na reta numérica a seguir, o ponto P representa o número 960 e o ponto U representa o número 1010.



Em qual ponto está localizado o número 990, sabendo que a diferença entre o valor de um ponto e o valor de outro ponto consecutivo é de 10 unidades?

(A) Q
(B) R
(C) S
(D) T

---

000 IT_044356

A figura mostra um triângulo desenhado em uma malha quadriculada. Deseja-se desenhar
um triângulo com dimensão 2 vezes menor.

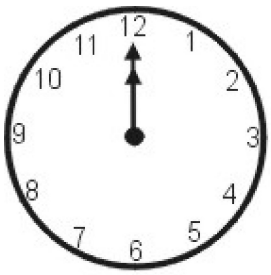
000 IT_023548

Sendo $N = (-3)^2 - 3^2$, então, o valor de N é

(A) 18
(B) 0
(C) –18
(D) 12

000 IT_023980

Observe os ponteiros nesse relógio:



Decorridas 3 horas, qual é o ângulo formado pelos ponteiros?

(A) 15°
(B) 45°
(C) 90°
(D) 180°

000 IT_025279

Das 15 bolinhas de gude que tinha, Paulo deu 6 para o seu irmão.
Considerando-se o total de bolinhas, a fração que representa o número de bolinhas que o irmão de Paulo ganhou é

(A) $\frac{6}{15}$.

(B) $\frac{9}{15}$.

(C) $\frac{15}{9}$.

(D) $\frac{15}{6}$.

---

000 IT_025521

Paulo é dono de uma fábrica de móveis. Para calcular o preço V de venda de cada móvel que fabrica, ele usa a seguinte fórmula V = 1,5 C + R$ 10,00, sendo C o preço de custo desse móvel. Considere que o preço de custo de um móvel que Paulo fabrica é R$ 100,00. Então, ele vende esse móvel por

(A) R$ 110,00.
(B) R$ 150,00.
(C) R$ 160,00.
(D) R$ 210,00.

---

000 IT_025570

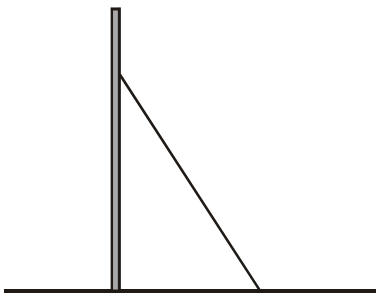
Fazendo-se as operações indicadas em 0,74 + 0,5 – 1,5 obtém-se

(A) – 0,64.
(B) – 0,26.
(C) 0,26.
(D) 0,64.

---

000 IT_026669

Observe esta figura que representa uma escada apoiada em uma parede. O topo da escada está a 7 m de altura, e seu pé está afastado da parede 2 m.



A escada mede, aproximadamente,

(A) 5 m
(B) 6,7 m
(C) 7,3 m
(D) 9 m

---

000 IT_026707

Em uma cidade do Alasca, o termômetro marcou -15^{o} pela manhã.
Se a temperatura descer mais 13^{o}, o termômetro vai marcar

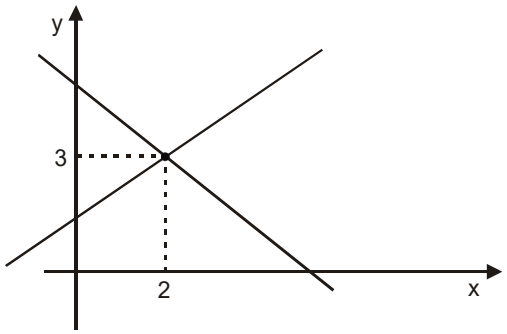
(A) -28^{o}
(B) -2^{o}
(C) 2^{o}
(D) 28^{o}

---

000 IT_028248

Observe este gráfico, em que estão representadas duas retas:

Para que esse gráfico seja a representação geométrica do sistema $\begin{cases} x + 2y = a \\ x - y = b \end{cases}$, os valores de a e b são



(A) a = –1 e b = 8.
(B) a = 2 e b = 3.
(C) a = 3 e b = 2.
(D) a = 8 e b = –1.

---

000 IT_028301

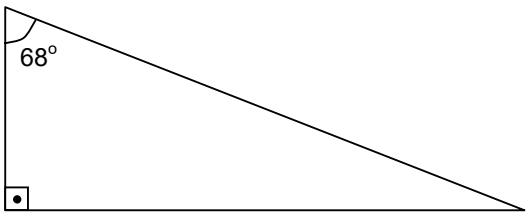
O custo de uma produção, em milhares de reais, de x máquinas iguais é dado pela expressão $C(x) = x^2 - x + 10$. Se o custo foi de 52 mil reais, então, o número de máquinas utilizadas na produção foi

(A) 6
(B) 7
(C) 8
(D) 9

---

000 IT_029654

Fabrício percebeu que as vigas do telhado da sua casa formavam um triângulo retângulo que tinha um ângulo de 68°. Quanto medem os outros ângulos?



(A) 22° e 90°
(B) 45° e 45°
(C) 56° e 56°
(D) 90° e 28°

---

000 IT_029667

Exatamente no centro de uma mesa redonda com 1m de raio, foi colocado um prato de 30cm de diâmetro, com doces e salgados para uma festa de final de ano. Qual a distância entre a borda desse prato e a pessoa que se serve dos doces e salgados?

(A) 115cm
(B) 85cm
(C) 70cm
(D) 20cm

---

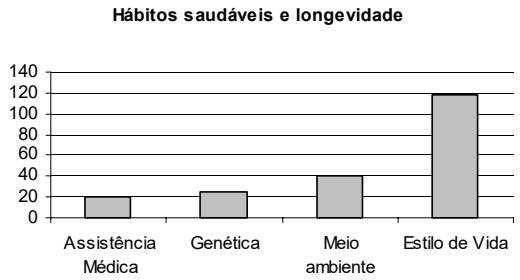
000 IT_029707

Os alunos da 8ª série fizeram uma estimativa para 200 pessoas com base no estudo abaixo.

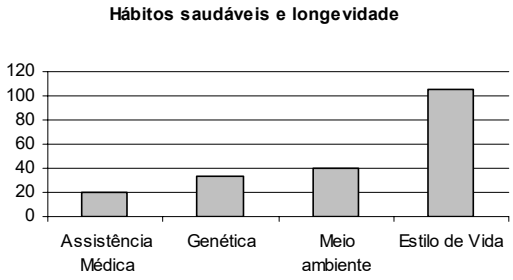


Que gráfico de barras melhor representa o estudo?

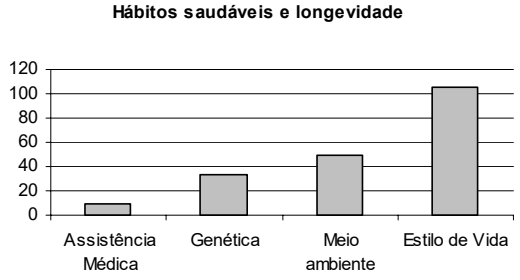
(A)



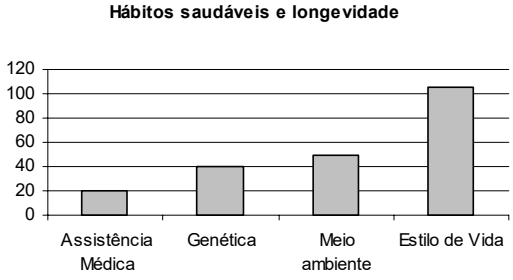
(B)



(C)



(D)



---

000 IT_033358

O administrador de um campo de futebol precisa comprar grama verde e amarela para cobrir o campo com faixas verdes e amarelas iguais em áreas e quantidades. O campo é um retângulo com 100 m de comprimento e 50 m de largura e, para cada 10 m^2 de grama plantada, gasta-se 1 m^2 a mais por causa da perda. Quantos m^2 de grama verde o administrador deverá comprar para cobrir todo o campo?

(A) 2250
(B) 2500
(C) 2750
(D) 5000

---

000 IT_033779

Uma prefeitura aplicou R$ 850 mil na construção de 3 creches e um parque infantil. O custo de cada creche foi de R$ 250 mil. A expressão que representa o custo do parque, em mil reais, é

(A) x + 850 = 250
(B) x – 850 = 750
(C) 850 = x + 250
(D) 850 = x + 750

---

000 IT_036299

Em uma loja de informática, Paulo comprou: um computador no valor de 2200 reais, uma impressora por 800 reais e três cartuchos que custam 90 reais cada um. Os objetos foram pagos em 5 vezes iguais. O valor de cada parcela, em reais, foi igual a

(A) 414
(B) 494
(C) 600
(D) 654

---

000 IT_037263

Para ligar a energia elétrica em seu apartamento, Felipe contratou um eletricista para medir a distância do poste da rede elétrica até seu imóvel. Esta distância foi representada pela expressão: $(2\sqrt{10} + 6\sqrt{17})$m. Para fazer a ligação, a quantidade de fio a ser usado é duas vezes a medida fornecida pela expressão. Nessas condições, Felipe comprará aproximadamente

(A) 43,6 m de fio

(B) 58,4 m de fio

(C) 61,6 m de fio

(D) 81,6 m de fio

---

000 IT_042450

Quantos quilogramas de semente são necessários para semear uma área de 10 m x 24 m, observando a recomendação de aplicar 1 kg de semente por 16 m^2 de terreno?

(A) $\frac{1}{15}$

(B) 1,5

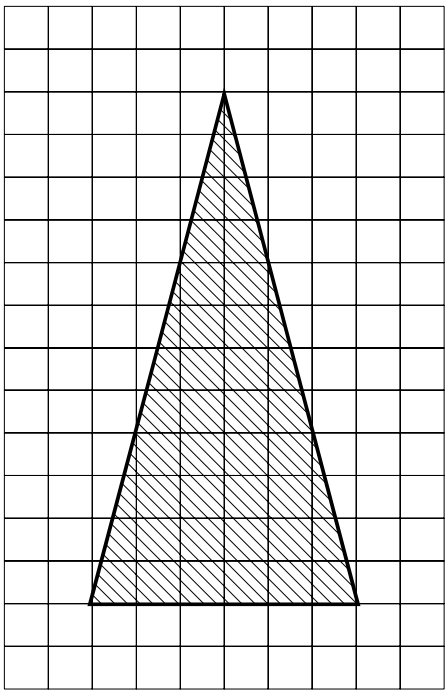
(C) 2,125

(D) 15

---

000 IT_043469

Um triângulo está representado na malha quadriculada abaixo.



Para fazer uma redução desse triângulo que tenha suas dimensões 4 vezes menor que a original, deve-se

(A) multiplicar as dimensões da original por 4.
(B) dividir as dimensões da original por 4.
(C) multiplicar as dimensões da original por 2.
(D) dividir as dimensões da original por 2.

---

000 IT_043535

Uma casa tem 3,88 metros de altura. Um engenheiro foi contratado para projetar um segundo andar e foi informado que a prefeitura só permite construir casas de dois andares com altura igual a 7,80 metros. Qual deve ser a altura, em metros, do segundo andar?

(A) 3,92
(B) 4
(C) 4,92
(D) 11,68

---

000 IT_043744

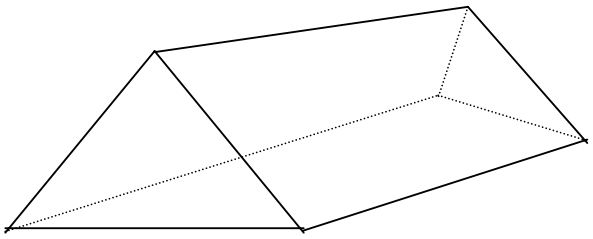
Um posto de combustível colocou um cartaz anunciando o preço da gasolina por 2,206 reais o litro. Isto significa que o posto vende a gasolina a 2 reais e

(A) 0,206 centésimos de real.
(B) 0,206 décimos de real.
(C) 206 centésimos de real.
(D) 206 milésimos de real.

---

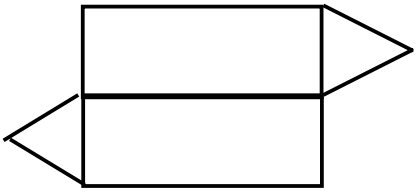
000 IT_044170

É comum encontrar em acampamentos barracas com fundo e que têm a forma apresentada na figura abaixo.

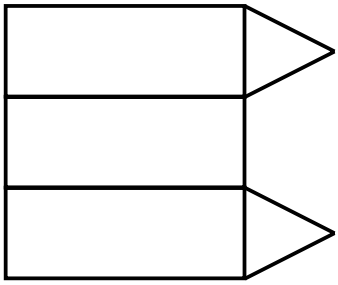


Qual desenho representa a planificação dessa barraca?

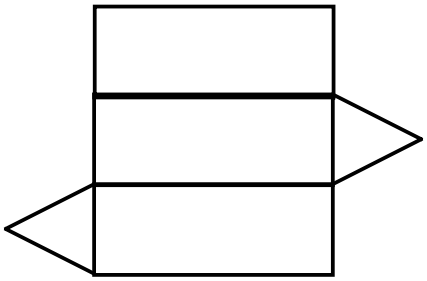
(A)



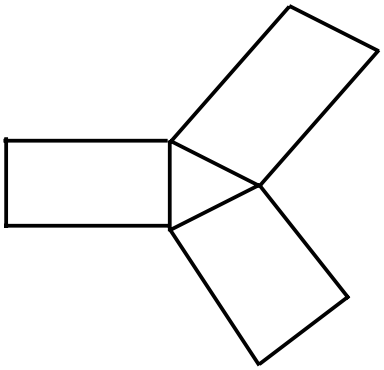
(B)



(C)



(D)

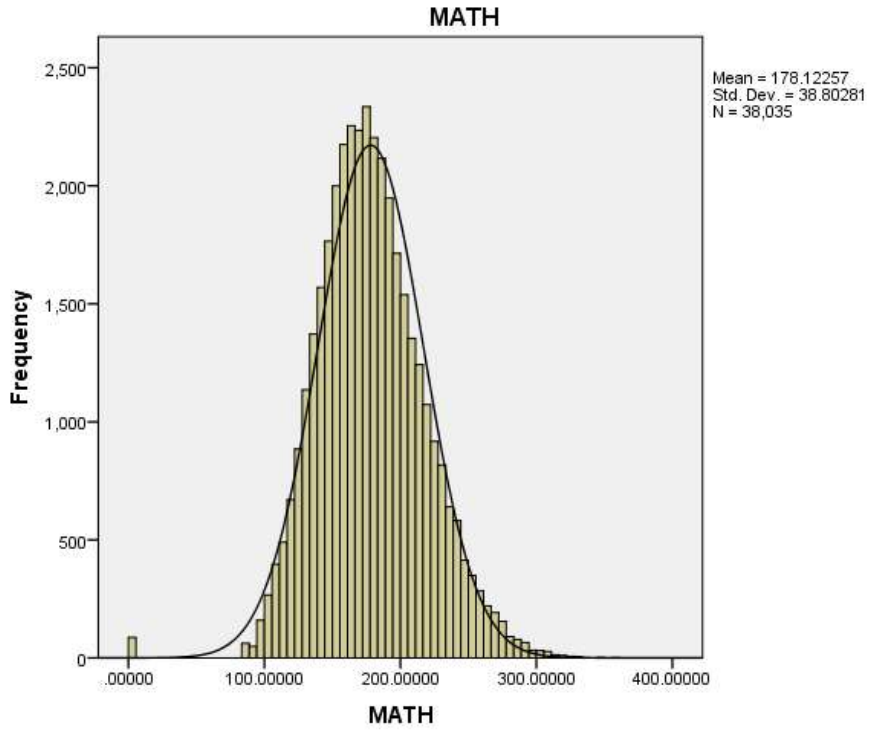


Appendix V: Descriptive Statistics for Grade 4/5 and Grade 8/9 Students' Prova Brasil Mathematics Scores 2007-2013

Grade 4 Mathematics Prova Brasil Scores 2007

Descriptive Statistics

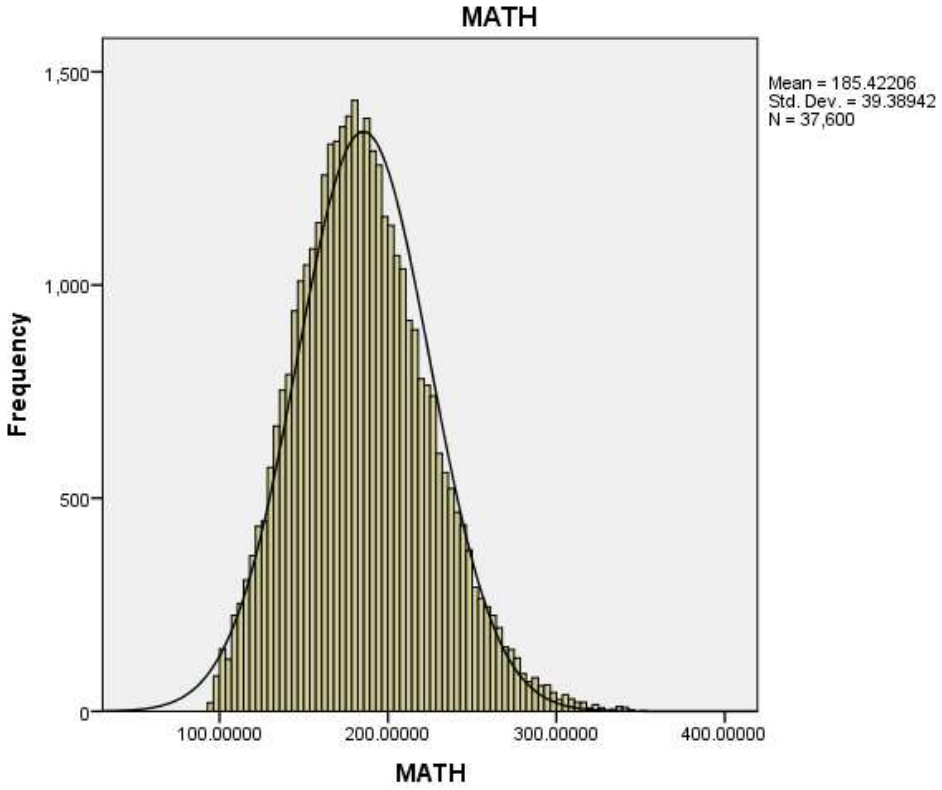
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
MATH	38035	.00000	356.31520	178.1225655	38.80281217	.192	.013	.877	.025
Valid N (listwise)	38035								



Grade 5 Mathematics Prova Brasil Scores 2009

Descriptive Statistics

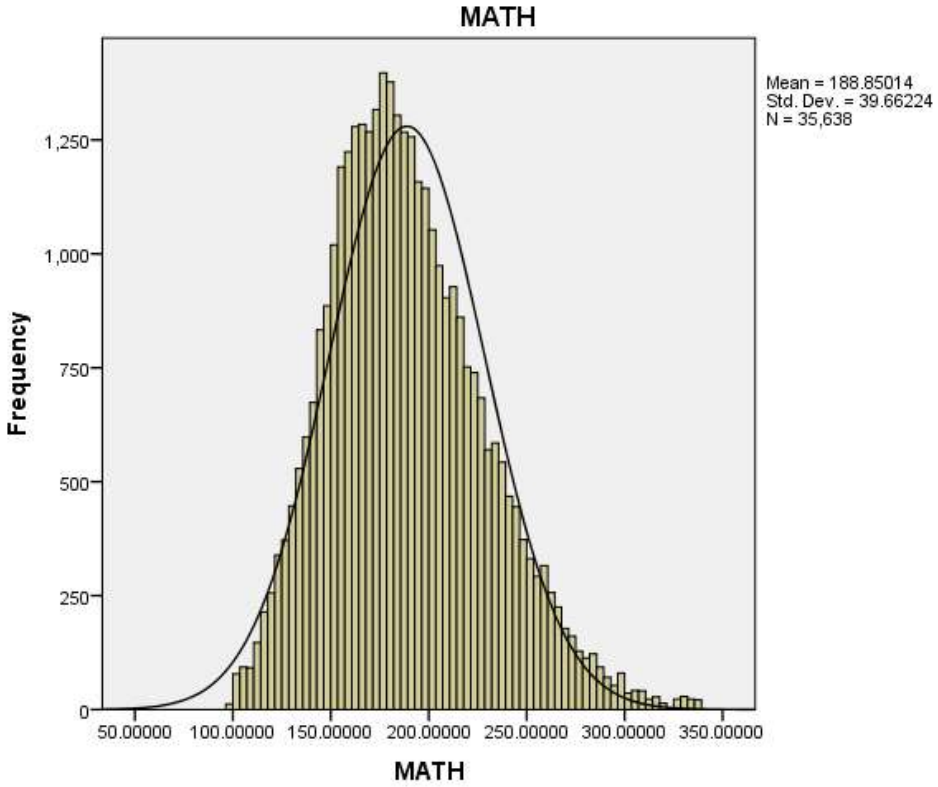
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
MATH	37600	93.33992	350.48000	185.4220551	39.38941839	.397	.013	.107	.025
Valid N (listwise)	37600								



Grade 5 Mathematics Prova Brasil Scores 2011

Descriptive Statistics

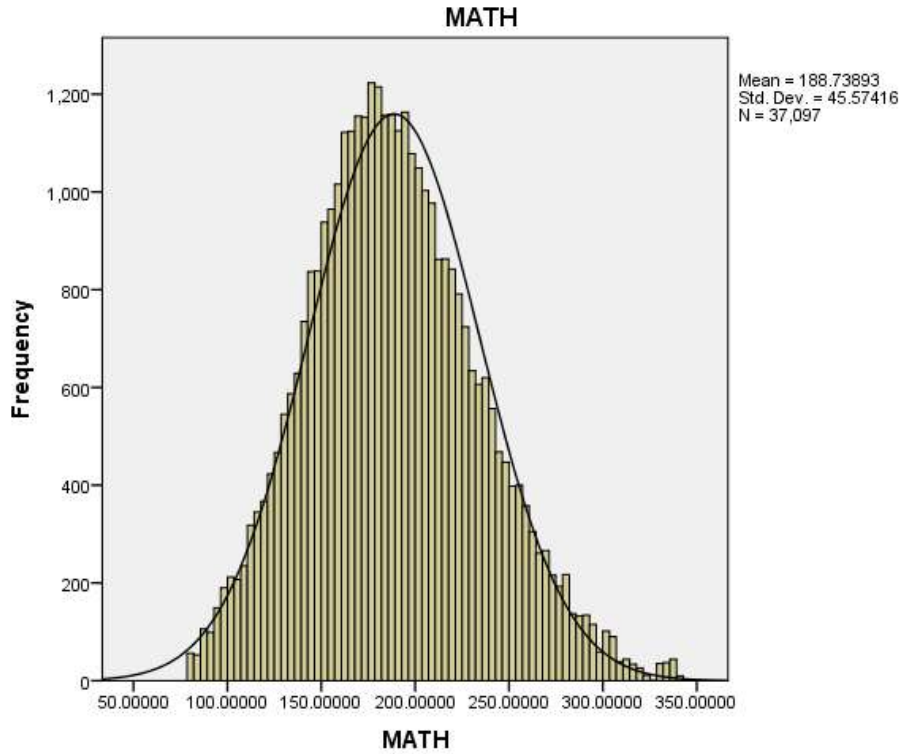
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
MATH	35638	97.47558	338.17717	188.8501367	39.66224240	.529	.013	.227	.026
Valid N (listwise)	35638								



Grade 5 Mathematics Prova Brasil Scores 2013

Descriptive Statistics

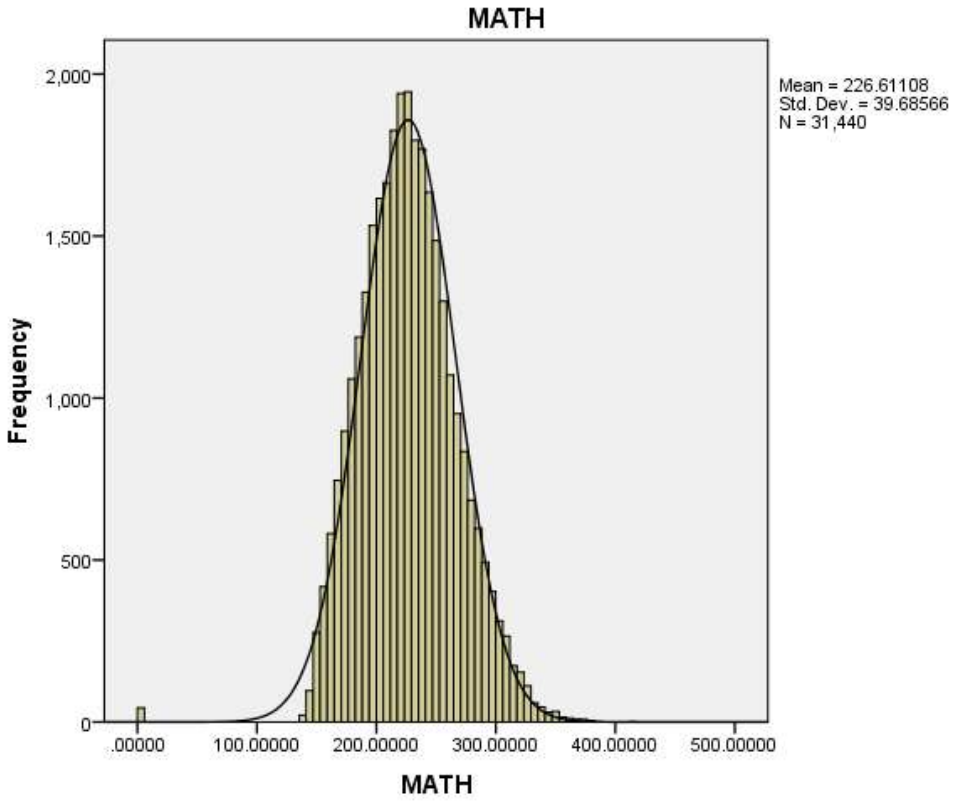
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
MATH	37097	78.92084	341.25455	188.7389264	45.57415868	.302	.013	-.053	.025
Valid N (listwise)	37097								



Grade 8 Mathematics Prova Brasil Scores 2007

Descriptive Statistics

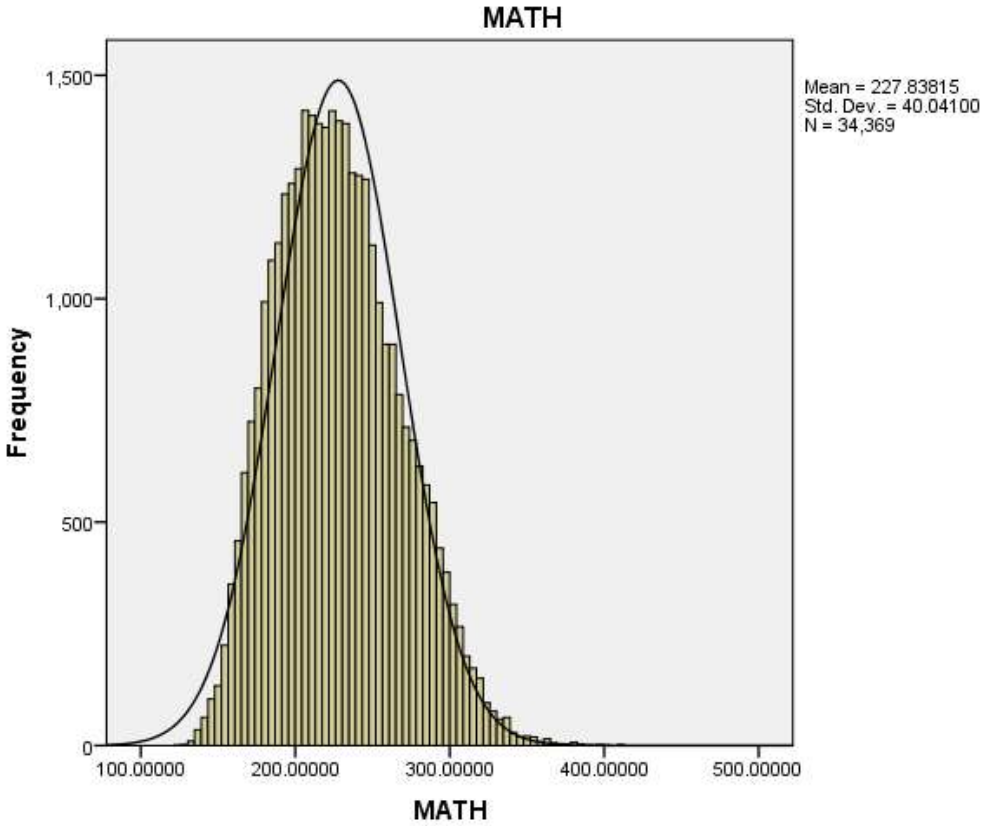
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
MATH	31440	.00000	413.07480	226.6110751	39.68566427	.082	.014	1.168	.028
Valid N (listwise)	31440								



Grade 9 Mathematics Prova Brasil Scores 2009

Descriptive Statistics

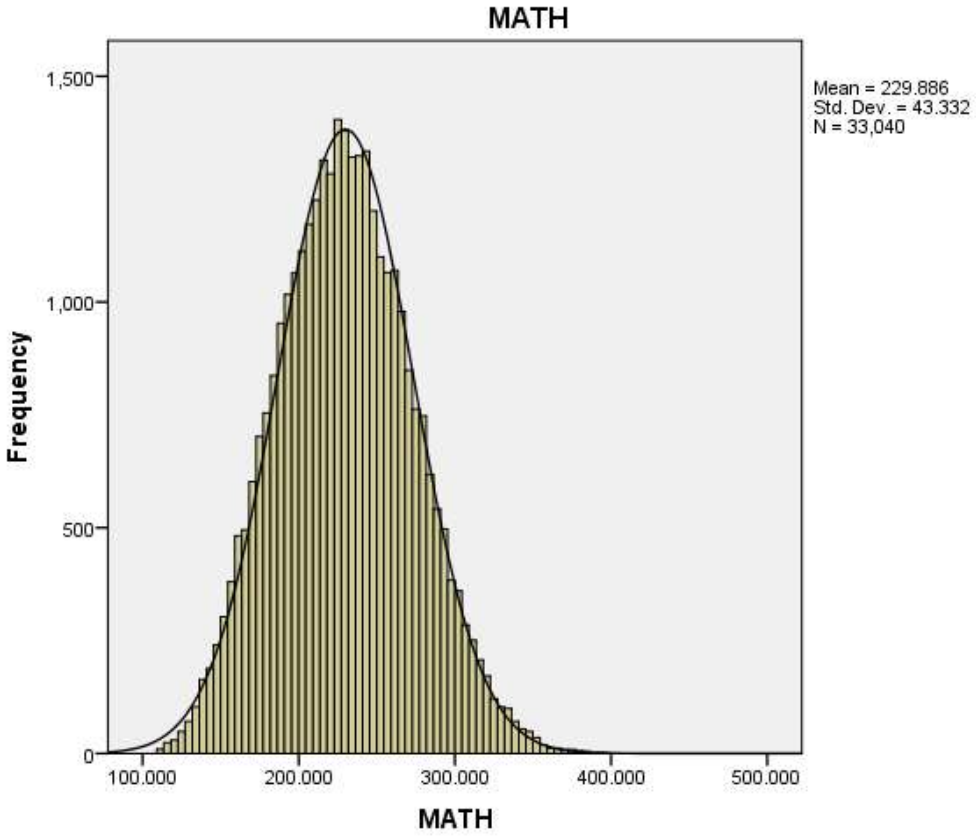
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
MATH	34369	124.73860	409.54300	227.8381515	40.04100233	.371	.013	-.194	.026
Valid N (listwise)	34369								



Grade 9 Mathematics Prova Brasil Scores 2011

Descriptive Statistics

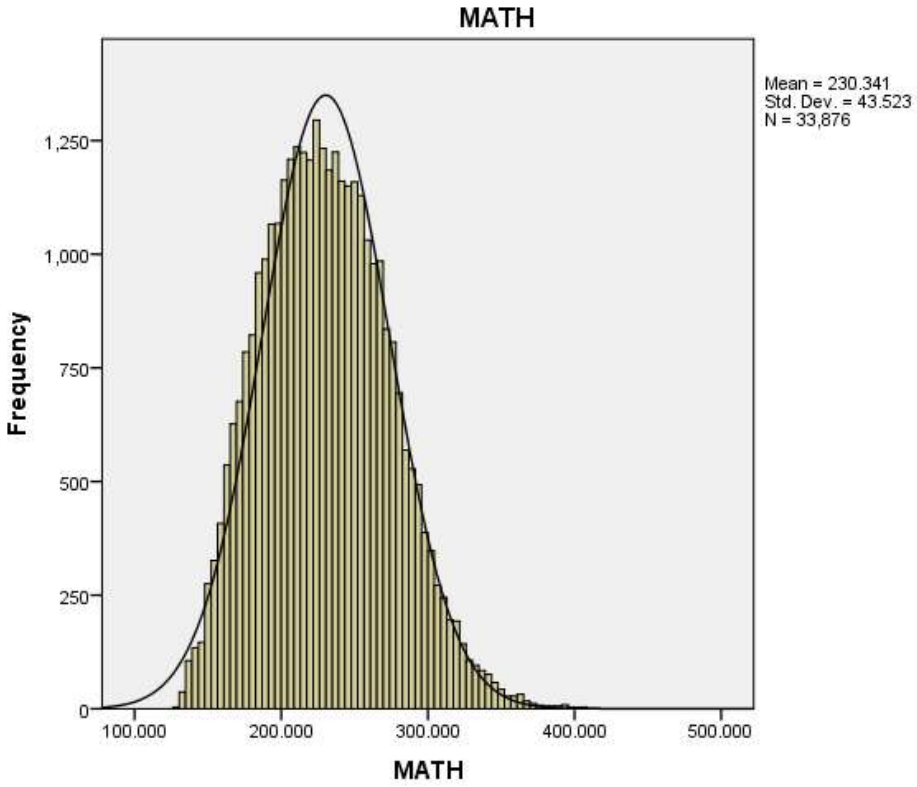
	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
MATH	33040	109.279	396.048	229.88613	43.331958	.153	.013	-.191	.027
Valid N (listwise)	33040								



Grade 9 Mathematics Prova Brasil Scores 2013

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
MATH	33876	129.246	414.707	230.34088	43.523025	.307	.013	-.157	.027
Valid N (listwise)	33876								



Appendix VI: Descriptive Statistics of Predictors Used in This Study

Grade 4 2007 Descriptive Statistics of Predictors

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
motheredu	25558	4	0	4	1.46	1.228
fatheredu	20540	4	0	4	1.43	1.320
crowded	37812	5.00	.00	5.00	1.3571	.77435
wealth	37812	1.67	.00	1.67	.2348	.36621
infra	37476	2.25	.75	3.00	2.4249	.54967
teachersupport	37137	3.00	.00	3.00	.8252	.80643
edulevel_first	37911	5	0	5	3.19	1.276
booksrecieved_first	37911	1	0	1	.05	.228
Valid N (listwise)	17818					

Grade 8 2007 Descriptive Statistics of Predictors

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
motheredu	26220	4	0	4	1.41	1.205
fatheredu	22150	4	0	4	1.20	1.207
crowded	31345	5.00	.00	5.00	1.5873	.89738
wealth	31345	1.67	.00	1.67	.2069	.34842
infra	30957	2.25	.75	3.00	2.4711	.50089
teachersupport	30241	3.00	.00	3.00	1.2352	.83216
booksrecieved_first	31417	1	0	1	.02	.126
edulevel_first	31417	4	1	5	4.42	1.034
Valid N (listwise)	20247					

Grade 5 2009 Descriptive Statistics of Predictors

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
motheredu	25850	0	4	1.39	1.222
fatheredu	21551	0	4	1.33	1.282
crowded	37362	.25	5.00	1.6660	.75248
wealth	37362	.00	1.67	.2977	.40293
infra	36149	.75	3.00	2.3342	.58364
teachersupport	32146	.00	3.00	1.1947	.89995
booksrecieved_first	36032	0	1	.20	.402
edulevel_first	36032	0	5	3.20	1.301
Valid N (listwise)	16484				

Grade 9 2009 Descriptive Statistics of Predictors

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
motheredu	28487	0	4	1.46	1.189
fatheredu	24211	0	4	1.19	1.180
crowded	34229	.25	5.00	1.8630	.82708
wealth	34229	.00	1.67	.2799	.40315
infra	33256	.50	3.00	2.3103	.56691
teachersupport	30339	.00	3.00	1.6730	.81041
booksrecieved_first	32965	0	1	.17	.378
edulevel_first	32965	0	5	4.25	1.264
Valid N (listwise)	19990				

Grade 5 2011 Descriptive Statistics of Predictors

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
motheredu	22668	0	5	2.27	1.461
fatheredu	19646	0	5	2.09	1.602
crowded	35223	.00	5.00	1.6930	.77848
wealth	35223	.00	1.67	.4170	.45987
infra	35469	1.25	3.00	2.6178	.38348
teachersupport	35210	.00	3.00	1.9141	.68244
booksrecieved_first	35637	1	1	1.00	.000
edulevel_first	35637	1	5	3.40	1.184
Valid N (listwise)	16651				

Grade 9 2011 Descriptive Statistics of Predictors

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
motheredu	26875	0	5	2.33	1.386
fatheredu	23763	0	5	1.96	1.439
crowded	30886	.00	5.00	1.4551	.60985
wealth	32793	.00	1.67	.4038	.46225
infra	32944	1.25	3.00	2.5824	.38169
booksrecieved_first	32802	1	1	1.00	.000
edulevel_first	32802	1	5	4.43	1.092
Valid N (listwise)	20893				

Grade 5 2013 Descriptive Statistics of Predictors

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
motheredu	24416	0	5	2.29	1.474
fatheredu	20705	0	5	2.11	1.596
crowded	34481	.00	5.00	1.4592	.73090
wealth	34481	.00	2.00	.5231	.44499
infra	36230	.75	3.00	2.3354	.54318
teachersupport	32304	.00	3.00	1.7878	.85628
booksrecieved_first	30513	0	1	.24	.425
edulevel_first	35627	0	4	1.29	1.233
Valid N (listwise)	13213				

Grade 9 2013 Descriptive Statistics of Predictors

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
motheredu	27894	0	5	2.44	1.441
fatheredu	24285	0	5	2.02	1.490
crowded	32711	.00	5.00	1.5878	.72647
wealth	32711	.00	2.00	.4754	.43666
infra	32798	.25	3.00	2.3035	.56610
teachersupport	28664	.00	3.00	2.1190	.76766
booksrecieved_first	25028	0	1	.22	.417
edulevel_first	32781	0	4	1.38	1.297
Valid N (listwise)	14497				

Appendix VII: Analysis and Reflection of Pilot Interview

Pilot Interview Transcript & Analysis
Interview conducted with 1 male teacher. The interview was 22 minutes, 42 seconds long.

Interviewer: how long have you been teaching?

Interviewee: 35 years

Interviewer: that's a long time and what grades do you teach?

Interviewee: I teach the last grade of elementary school and middle school

Interviewer: And what subjects you teach? Mathematics right?

Interviewee: yes mathematics

Interviewer: and what are your qualifications?

Interviewee: I have achieved a post secondary certificate with a specialization in teaching mathematics

Interviewer: and how many schools do you teach in?

Interviewee: right now I only each in 1 because I work for the ***** as well as teaching. I have taught in municipal schools and private schools.

Interviewer: in the schools you work in do they do Prova Brasil?

Interviewee: yes they do

Interviewer: could you tell me a little something about how Prova Brasil is applied in the schools?

Interviewee: I think Prova Brasil is interesting as one method of evaluation where we can see specifics of middle schools, principally the study of mathematics in middle schools. As one method of elaboration on how mathematics is in the middle school level in our education system. And said the method of elaboration should be more transparent and have more participation and discussion because it's not just about evaluation. Evaluation is good as a diagnostic tool and we should have it but the most important part of evaluation is trying to figure out what we can do to make it better. And so the information is problematic because it's all so distant and we don't see it. To do an evaluation to tell you what you already know and not to take the opportunity to value what we can do to make the quality of teaching better. We need to take the opportunities but right now these opportunities are just public gestures and right now they're not obligated to give us this information. So now they do these evaluations and then throw weak analysis on top of the teachers and this is the problem.

Analysis note: This question appears to elicit interesting political and contextual information. The way the wording is framed appears to make sense to this interviewee and prompts a long, narrative style response. The response will probably be useful to the research study.

Interviewer: Who comes the school to administer these tests? It's not teachers is it?

Interviewee: it is teachers contracted by INEP and this is another serious problem with the test. Because it is the way that they leave these tests. This leaves some questions about how the test is done and this exists often as a question in Brazil. I see this as a question in the situation of Prova Brasil in the way that I've already said, the evaluation is correct but now you have to evaluate what? Evaluate what I already know? You have to evaluate to learn. In the classroom with my students, I evaluate to see if the form that I gave the information in is getting to the students and if those students aren't getting it as a teacher I need to know why. And then I'll go try to find a solution with a pedagogical team. Now some problems are beyond our control like a student who doesn't go to school I would know that his knowledge is fragmented how and what will he learn if he doesn't participate?

Interviewer: and so you have this evaluation that comes from above on teachers that doesn't have a lot to do with what happening in the classroom? There are problems with students in the classrooms and then they use the statistics talk about problems in the classroom?

Interviewee: and then they don't give us the information we need. We need to change this form.

Interviewer: I understand. Okay and how do you think students feel about Prova Brasil?

Interviewee: they don't really take it seriously and in Brazil people don't take things seriously when there are rewards or consequences. Look at ENEM (the university entrance test) people are taking it seriously. Why? Because it replaces the old Vestibular and it replaced this test and so we had a change principally in the teaching in private schools. You can see it especially in the little courses. Now these tests are varied and so the teacher who used to teach to the Vestibular and you have to be more specialized and have much more profound studies in order to prepare the students for the ENEM. Now we have a big problem in this country because the private school have their students enter. They don't want public schools to be giving a good education or good changes in the public school system because this would take away their clients. It would be bad if the students realize that public school was the better offer and there are many people who work inside a great conditions and who assume the responsibility for getting students into public universities. If you have a family member in the private system you can see they've assumed this, but they also don't assume the conditions of public schools. And this needs to be regulated/overseen. The Secretariat of education needs to look at who is getting into public schools as a problem in our country.

Analysis note: Again I'm happy with the long narrative answer that this question elicits. This will be helpful in understanding the context of the Prova Brasil assessment.

Interviewer: and so private schools take this test seriously because they have to be better or look better than public schools. Students in public schools when they see Prova Brasil in front of them do they take it seriously? Because they don't get a grade…

Interviewee: yes well that's the situation the private schools but the bigger question is your organization on top needs to make a name for themselves and the institution and so they have to have this propaganda it's not good in as far as the mark is made by the best students in the school just as much in Prova Brasil as in ENEM.

Interviewer: and so there are teachers that choose the student to take the test?

Interviewee: yes they choose the student but in public school this is difficult. The public school teacher is in a different situation. And so in this situation the conscience is very difficult. We work and today we are living in a violent situation in our country and public schools have a big problem to the point where the justice system has problems. all in the way that today the teacher sees the judge put the kids in the school and this is a terrible problem. Why? Because people in the schools don't have the preparation or cover to work with these kinds of people.

Analysis note: I went off the script here a little bit. This is my first interview and although the semi-structured interview allows me to explore beyond a strict interview schedule, this man is busy and has classes to teach later in the day. I will have to be circumspect about going too far from the interview schedule.

Interviewer: okay I saw in the data of Prova Brasil that Prova Brasil should be done in all of the schools this is probably the case in Paraiba but only 50% of the students actually do the test why is this number so low? If everyone should be doing the test? Are there a lot of people missing the start of the school year? I don't know.

Interviewee: there are problems with the oversight of the test. And then there is what I've already said the students don't get their results I think and it needs to change they need an incentive. It is a question of follow through this is a problem in our country. We need to incentivize education and work with each other to grow education nationally.

Interviewer: I understand. 2007 were filling out their questionnaire and in 2009 there were and left again in 2011, and there will probably be less in 2013. How do Teachers feel about Brazil? Why is there less participation? Is it because of what you said, evaluation from the top?

Interviewee: yes it is exactly this. And there enters machoness. But to really talk about this and prove it we need a bigger study. But I don't have these statistics talk about it. But I think it's true. Because there is no greater incentive the structure that it should have, incentives accompanied by gestures and participation of the student to grow the school, so that the feel valued and motivated to work and this is the situation. Now, not just the evaluation that show you about students there should be productions from each school so if you send Prova Brasil it can do the same it can show you some situations but it really doesn't show situations that people are working it's just used for comparison like the students from the South are shown to be better than those from the North East. But Really it's a difference in situations.

Analysis note: This is very interesting and although it was asked to help me deal with missing data, it provides a lot of contextual information above and beyond the missing data funsction intended by the question originally.

Interviewer: Ummm you already talked about this. Have you noticed between 2007 and now resources for the school getting any better?

Interviewee: look, resources sometimes, the resources are limited in public schools. It's better in schools there is better equipment but resources to support the equipment, people who know how to work with the equipment… For example computers and Infotech in the classroom. So, to this day I think I say there haven't been significant changes regarding the question in the structure of schools. So schools continue to function precariously.

Analysis note: I need to be more specific when I ask this question in the future. This information is good but not detailed enough for this study.

Interviewer: okay I understand. What are the most important resources in your classroom? What are the resources that you most value?

Interviewee: the resources that I most value first is concrete material so students can see a complete lesson. So for example in mathematics you need to have concrete and complete examples. So you play with mathematic games, and this creates motivation for the students. In the terms of the actual classroom that is a whole other situation especially for us in the North East the heat, especially in the second semester, September October November the climate is another serious problem. We have to teach classes when the majority of classrooms are not climate controlled. This is terrible to try to work in especially in the afternoon. Also the structure of the classroom the parameters that were determined by the state, it says that every classroom must have .2 m squared per student and three meters square for the teacher. No 2 m^2 for the teacher to move around in. And the space for the students is also a problem. Here is the principle. It is the de-professionalization. It doesn't work, it is not professional. So today you can see for example the lack of salary. The Salary for a teacher of the state is 1527 per month. This is the pay of a teacher. Where is the motivation? So you have a situation of resources importantly you don't have, you have precarious amounts of resources and teachers aren't treated as professionals. If they were valued, if they didn't work in three schools like I do, because what happens is you don't have time to prepare the lesson to think about the lesson, really get to the students who are not involved with learning. You're only worrying about yourself and how you're going to manage this.

Analysis note: This question helps to add detail to the last. The interviewee seems excited to talk about resources they need in the future and that is helpful to the research, interesting, and helps to cover bases not captured by the last question which didn't appear to do as well.

Interviewer: okay I saw in Brazilian policy that they want to increase the qualification of teachers. But this appears to be mostly through online courses. You think these policies are working? Is it helping to increase the value of teachers to professionalize teachers? Have you seen any changes? They want you to be more qualified but you say they're not valuing you?

Analysis note: This question is too many questions rolled into one. I need to relax a bit and ask one, focused question at a time. Also avoid summarizing what I think it their opinion in the question – it will probably bias their answer. Summarizing their points of view after they have expressed them in response to my question is fine though.

Interviewee: yes this I see. I mean because I'm not against online distance learning because this is an economic measure to save money. But the thing you need is time to do this. This is what they're doing, the professionals have to keep working and then on the weekends and holidays they study. I think this is, people do go, people are motivated to do that, and it is not say that people don't want to learn, people do learn a little this way. But they produce more if they have time and our proposal, I can say our proposal because I'm of the union, people should have continuous professional development time away from the classroom and dedicated to professional development. and our proposal is a sabbatical every five and five years or maybe every 10 years. If they work for 10 years they have one year of sabbatical to continue with their education and qualifications. That is our proposal. But even this they don't gesture to agree with.
Interviewer: so the policy says that the teachers must be more qualified but they don't give the time to do it.

Analysis note: Even though I don' like how I asked the question, I did get some good information here.

Interviewee: yes they don't give us the time.

Interviewer: Do you think the new qualifications make teachers more valued than before? At least this?

Interviewee: no it is not valued principally because today in Brazil the big problem is one of investment in education via the contract. Because for education spending the brute number was 10% and after we worked, it was also a question of a national salary but the salary of middle school teachers hardly moved. And also the qualification support was primarily for high school teachers. A national program across grades did not come out. And they put the money in career schools. So we don't have a plan for the schools because the government took it away. So we are fighting for revision of this plan and to bring a plan back again. And again we come back to the question of value if we don't have a real career we don't have value. Even if the teacher has a post secondary degree because the salary is the same. That's the question that's the issue.

Analysis note: Good information, but I think I could be asking the question better.

Interviewer: okay that's all the questions.
END INTERVIEW

Post-interview Reflection: The original interview schedule was too long. It is obvious that the interviews are going to have to be short because it is the start of the year and everyone is busy. I have now modified the schedule to be about 20 minutes long. I still think that pertinent questions can be answered in 20 minutes.

I also have noticed in transcribing this interview that sometimes my understanding at the time is flawed. In future interviews I will avoid summarizing their points in the questions and instead stick more closely to the questions. A summarization of their position after the question is asked will be helpful to ensure understanding though. I do understand more when I can rewind as I transcribe.

Upon reflection of the interview schedule I think the questions regarding politics and context are god – they are garnering rich narrative accounts from the interviewees. The questions regarding resources are prompting some discussion but I think the questions could be further focused in order to get data more relevant to the DASI model.

My pronunciation and fluency is not where I would like it to be but it appears that my interviewees are able to understand me as they are not asking me to repeat myself or indicating that they don't understand what I'm saying.

Overall, what I like about my questions is that they are short and elicit long answers. These long answers are full of information I think is important and that answers my questions. This first interviewee has written a letter of introduction for me and pointed me in the direction of my first school. I have also thought that transcribing these interviews while still in the field is going to help me capture Portuguese and capture more context. Not to mention it can be considered peer reflection and personal reflection.

Although some of the questions regarding resources and teacher qualification can be fin tuned, I think the rest of the interview is both conceptually and practically strong. I think that the data generated in this pilot interview can be used in this research project as they questions in the final schedule will be based on this interview schedule, the answers produced by this survey provide specifical and relevant material related to my research question.

Appendix VIII: Site Observational Notes

Site 1:

This site was a teachers union building, not a school. Post-interview notes: the original interview schedule was too long. It is obvious that the interviews are going to have to be short because it is the start of the year and everyone is busy. I have now modified the schedule to be about 20 minutes long. I still think that pertinent questions can be answered in 20 minutes. I also have noticed in transcribing this interview that sometimes my understanding at the time is flawed. In future interviews I will avoid summarizing their points and instead stick more closely to the questions. I do understand more when I can rewind as I transcribe. What I like about my questions is that they are short and elicit long answers. These long answers are full of information I think is important and that answers my questions. This first interviewee has written a letter of introduction for me and pointed me in the direction of my first school. I have also thought that transcribing these interviews while still in the field is going to help me capture Portuguese and capture more context. Not to mention it can be considered peer reflection and personal reflection.

Site 2:

The school is large and appears to be in reasonable shape. It is right in the very heart of downtown ****. There are students everywhere, an armed guard inside the door, and inside, although there is some garbage on the ground, it appears well kept. In terms of infrastructure, although it may not be perfectly pretty, the building does appear very reasonable. Informally, I was informed by teachers work at this school, that many students bus from the suburbs to come to this school. I was told this is likely because schools in the suburbs can be dangerous, the infrastructure, resources, and number of qualified teachers are not as good. Also informally, teachers talked about large class sizes, classrooms with 50 students in them, a lack of motivation in the students, a lack of value in education in their homes and socially/culturally. Interestingly, some of the teachers that had been teaching a long time felt that the education system was better before these reforms. They felt that way because before education was not mandatory for all people, there are much lower enrolment rates, so they felt the students that bothered to come to school were motivated to be there. They felt that because the system was available to everybody now, there was less value to it. My thoughts on this are generally that education for all is a new concept in Brazil and so it requires social/cultural adjustments that may take a very long time. There does appear to be major improvements in infrastructure and resources in the schools, and enrolment rates are much higher. There have been some very positive changes in Brazil. It appears as though teachers think highly of federal education policies, but feel that money and policies are diluted at the state and municipal government level. They also suggest that the improvements have not gone far enough, an unusable Internet and computer rooms with 20 or 22 computers when they have 50 in a class. Administratively, there seemed to be some issues. Another note, is that the doors into the school and inside of the schools are locked. It keeps students in certain areas at certain times, and presumably to stop some people from getting in. The doors are protected by armed guards wearing bulletproof vests. The teachers do regularly speak about drug use and violence in the schools and sometimes towards them.

Site 3:
A school in **** in a suburban neighbourhood that appears to be about middle-class. It's a much smaller school than the downtown school. It appears well kept and there is security at the gate and at the school itself. Generally more friendly, the guards are not armed and they are not wearing bulletproof vests. It is one level and seems to have only elementary school kids in it. Areas of the school continue to lock student in and out at particular times. A glance around the side of the building reveals him infrastructure decay, but the front of the school itself is tidy, and welcoming. Although the interviewees called the school big, it is probably closer to medium sized. Certainly not the size of the school in the center of the city – not even close. The teacher's room does have a hastily repaired leak in the ceiling, but it's noted that it's a cement ceiling, not just the roofing on top of wood framing. The teacher's room is absolutely FULL of books. Many, many packages not yet opened. The books spill out onto the floor, there isn't the space to organize or store them there are so many. Interviewee four takes me on a tour of the building. The library is a new addition, and does have a significant amount of space. The room was recently added to the school and is just finishing up renovations. When it's done there will be round tables and a few stacks of books. The books appear to be mostly exercise books and dictionaries. There don't appear to be novels or more fun reading materials. The school had been painted recently and is clean and generally good looking. The rooms aren't too hot, and they have white boards. There are a lot of desks in each classroom. The cafeteria has also been expanded recently, and they say the food served is very good. There is one meal served for each session. At 9am for the morning session, and at 3 for the afternoon session. Free lunches and the times at which they are served does not vary across the schools. Teachers agree that the quality and quantity of food is good and that it is a major motivating factor in getting kids in to schools on a regular basis. The lawn outside has some space for the kids to play and is well cared for.

Site 4:
This drive took us about 3.5 hours. It is located far from the capital and is certainly rural. The roads are reasonably well maintained, but it is very far from any of the 3 major cities of Paraiba. There is a security guard at the gate but he is not armed and does not wear a vest. There are towns of varying sizes in the way and the stretches without any human habitation are small. There are usually very small houses indicating areas of abject poverty – probably the farm workers in this largely agricultural area. There are nice new shiny school buses passing frequently with students. There is only one open back truck with indications that is is/was a school bus – there are no students in it so it's unclear if it's still in operation. This is the only open air school transport truck we see, all the other transport modes are nice busses. The town of **** is very small, but is clean and neat. It appears to be quite poor. The school, and all of the other major business, are located on the main road (highway) through the town. The school appears really small, but when I go in, it has obviously been added to. There is an elementary section and a late elementary section with differing administrative offices and principals. Obviously the school started really small but with many grade offerings and as the buildings grew, they ran into each other. The spaces between the classroom (like open air corridors) are REALLY small, only one person can pass at a time (maybe 2 children) which is not great because the school has grown to house quite a few students. In a tour of the area there is a computer lab and library but no sports area, no auditorium etc. Mostly just a collection of school rooms. The school rooms are dark, have just roofing on top of wood frames. There are small

white boards. The teachers room is really small. I would describe the infrastructure as minimal – basic. There is a guard at the gate, and students are locked in and locked out at different times, they are fed school meals (important in this area) and there are a lot of students whose families are collecting Bolsa Familia. One teacher disagrees with the program because she says it makes parents send their students to school, but certainly doesn't appear to make parents and families value the school system at all.

Site 5:

This city is considerably larger than **** and is located on a major route between two of the three major cities in Paraiba – **** and ****. The school is quite large and I'm later informed it is used all day (3 school sessions per day) that teach over 1500 student total. The school is guarded but the guard is not armed. The students are locked in and out at different times. The principal takes me around the school. There is a sports area that is big, an enormous auditorium with a projector, big classrooms that don't get too hot. Space between the buildings. The principal shows me that she has just finished building a special education lab, a dentist's office (services provided for free to students), a computer lab (climate controlled), an extended and recently roofed cafeteria area, and she shows me where she is going to build a bigger teachers room. There is also an adult education room full of books – full books and education packages (pencils, pens etc) for the adults who come to study. The special ed room is equipped with wheelchair assessable desks, specialized computer hardware for the blind and deaf, and a lot of tactile and physical aids. The whole school is becoming wheelchair accessible. The principal tells me that things have changed dramatically for this school, she simply applies for funding and money is given to her to improve the infrastructure and resources of the school. She says that the children of the Secretariat of education goes to this school. She calls the Secretariat of Education for the Municipality and she comes to the school within 5 minutes. She also talks about major improvements. She talks about the major improvements, the outstanding results of Paraibano students from the interior on national tests. She doesn't seem to know why there are discrepancies between schools, and says that the traditional funding differences between the states and the municipalities doesn't make sense and she thinks that eventually it will all come together. Currently, the state usually funds high schools and the municipalities fund elementary schools. The federal government funds both. Both say that this school has grown exponentially with increased enrollment recently, and although there are certainly some administrative issues to be worked out, the infrastructure and resources have been wonderful and have arrived, and have changed education in the community. It certainly requires more, but it is on the right track. The principal talks about reducing class sizes now, and increasing access to technology. Also, the rural zone of all schools, she says, is limited to about a 45 minute bus ride. These seem like "the next steps" towards an education system of the developing world. Of course the school doesn't look like a Canadian school, but it really has the basics and is moving towards more than that. My impressions are that the principal's relationship with the Secretariat has had a major impact on access to funding and improvements. I also feel optimistic about Brazilian education. My questions are now – does the condition of the school depend on how effective/hard working a principal is, or is it more to do with the nature of the Secretariat? What is the mediating/moderating variable? Why is the school system so advanced in some areas and not in others? Why the inconsistencies?

Site 6

This is the only school in this area. It is one of only 2 schools in a large geographic area. This indicates that there is a very small population in the area, it is going to be very rural, and most students will be bussed in. This school was chosen because it is very far from an major urban center, is extremely remote, rural, and isolated. It is not on any major road, and there aren't even any town nearby. The drive is about 3 hours from Joao Pessoa. After turning off at ****, the roads become very small and there is only 1 town we go through and it is within 10 minutes of ****. The rest are tiny, tiny settlements. A significant portion of the drive, no human habitation is present. Just fields and open undeveloped space. It is very clear this area is very rural, undeveloped, and isolated. The road ends and 20 kms of the road towards the town is dirt road. The town is very small (about 5000 inhabitants), but is clean and safe. The school is one of 3 elementary schools and it is the largest. It is extremely well kept. There is a guard at the door but he is not armed and is not wearing a vest. The school is recently painted. The grounds are clean, well spaced, and it appears to have everything. It is the first school with a playground area, it has open space. There is a computer lab with 10 computers, the principal tells me that there are 10 more that are accessible to the public in another building and another 10 in the Secretariat of Education's building. The average class size is 25. There are functioning computers in the teachers area and a printer too. The math lab/computer lab is cool, not hot, and is absolutely FULL of math posters and tactile references. The principal says that some of the computers came in 2007 (4 of them is my guess) and the rest in 2012. There are so many books. Even the chairs are new and nice. He says that he used to attend this school when he was young and it used to only have 2 classrooms. It's changed dramatically in the last 5 or 6 years. Interesting because the reforms began over 10 years ago. Maybe the remoteness of an area made the changes come more recently, but at the same time, the resources have come with vigour. This school has everything. The principal said that education in the area used to have the "at home" model (i.e. a woman giving classes out of her home as described by Harbison and Hanushek) but that doesn't exist any more. The buses bring the students to this large school mostly. The visit leaves me very optimistic about education in Brazil. This is about as remote and as poor and as rural as you can get and the school is outstanding. I would describe it as excellent by Brazilian terms.

Site 7

This is a small fishing and agricultural village. I chose it because of it's rural nature but also proximity to the capital. Is proximity to the capital a factor in school infrastructure and resource adequacy? The school is small and appears unkempt. It has a total of 5 classrooms and the teachers area is tiny. The school is untidy. Pieces of construction everywhere are basically just sitting around and rusting. There is a ton of unused space within the walls but it's uneven grass and rock, not even suitable for kids to play on. The corridors are pretty cramped, the classrooms are tiny. Windows are broken, the principal shows me where the roof caved in on 2 classrooms last time it rained. She's had patchwork fixed made. The security is female and she had no vest. The principal tells me there is no security at night which is why so many of the renovations are patchy and rushed – there is a drug den right beside the school and so she needs all the fixes done in one day or she fears that the drug dealers and their friends will come in at night and steal their technology. There are a ton of resources. Some old books that are out of date that the ministry has not come to collect. They are old, musty, and have water stains. She said she's not allowed

to sell them or get rid of them (an anti-corruption measure) so she has to wait for someone to come get them but when she asks, no one comes. She says the Secretariat never comes to the school and is unhelpful. She does the paperwork, sends pictures, but no resources come. There is one computer per classroom. Other computers came a while ago but they sit (precariously she points out) on shelves above students. They are all broken. They were never used because there was no room to put them in. They were also sent great music instruments, but there is no music room to put them in. And there is no music teacher. They had no math teacher for 1.5 years. The principal says that she sends in all the paperwork and nothing happens. She says that absolutely no improvements have been made to the infrastructure of the school in the last 10 years beyond quick fixes and paint. A few students ask her for pencils – there are none. One student askes for white out and she lends him white out but makes sure he understands that only he can use it and he has to bring it back – it is the only white out in the school. She talks about how poor the students in the area are, their families are fishermen usually, and education just doesn't appear to be important to them, the horrific infrastructure, resources, and lack of teachers for some subjects don't do much to change their value of education or inspire them. These are the worst conditions I've seen so far. I would describe the infrastructure as horrible. Interesting to note that the school is supposed to be a high school and is funded by the state, but because there aren't enough spaces in the other elementary schools, she also has elementary grades there, which are supposed to be funded by the municipality. I wonder if this has anything to do with the lack of money coming into this school, like the municipality refusing to fund it because it has highschool classes and vice versa? The principal and the teachers don't think so. The teachers seem to think this is the normal state of schools in Paraiba and that farther into the interior school are the same or worse. My experience is that I've seen other small schools like this one that appear to be in the same condition - I didn't visit them because I couldn't find them on google maps before to plan to go to them, and when we did stop to go into one, it wasn't open, so there are other schools like this one, but the schools I went into in the interior were at least basically adequate ranging to excellent. This isn't what I would describe as the norm. There is no psychiatrist or social worker here. No supervisors or administrative help at all. Again, why the discrepancy? Some teachers and the principal speculate that it might be the size of the school since funding is based on the number of students. I think it has something to do with the relationship of the principal with the Secretariat, and the Secretariat his/herself. Maybe resources arrive because there is no way to take that money out of the system and put it in your wallet, but money for infrastructure might be easier to keep out of schools and in your own pocket. It certainly doesn't have anything to do with the degree of rurality, degree of poverty, degree of isolation, and distance from the capital in my experience.

Site 8

This is one of the schools that we saw on the side of the highway but weren't able to get into before. This school is open and I come back at 1pm when the Portuguese and Math teacher (she teaches all subjects, she is not a specialist) will be here. Will she be here any earlier? No, that's when the school bus comes. So she busses in with the students. There are only 3 classrooms and one is new. Funding came from the "Mais Educacao" project. The roof has holes in it, it has no windows, it has only a small chalkboard and it's dark. It's tiny. It has been recently painted.

The kids are so poor some don't have shoes. The teacher said the lunch here is horrible. She says the kids in **** have much nicer schools and are much richer – this was not my experience but it is noted that this may be the poorest of all the schools I have visited and is absolutely the worst one. The school has been doing Provinha and is now just big enough to do Prova Brasil this October 2015. Prova Brasil is not administered in schools smaller than this. Important that my sample limitations mention this, that my sample is biased. The worst of the schools are not being monitored by Prova Brasil. So there is a part of this education system that is very much failing and is not being picked up on the charts. There is no support here either – no special ed or social worker etc. the teacher motions to several students who don't eat for long periods of time because their parents are too poor. On schools day the lunch here may be all they get in a day. This is the same Secretariat that oversees ****. How can there be so much money in the system to improve things and yet these schools today have absolutely nothing. This is no better than it was 20 years ago. Again, I have to go back to the discrepancy questions. Such vast differences. I think the teacher I interviewed was one of the old teachers who had no qualifications, she mentions taking a 1 month pedagogical class to qualify to be a teacher. So the qualifications of teachers here are very limited. The school has 2 computers and she says they are both broken and have no access to internet. There is no gated area that is safe for the kids to play in so the teacher says they have to put the kids outside (near the road) to play. There isn't anything to play with. They keep the smaller kids inside when they can. No sport quadra, no library, no computers really, no photocopier, no printer, no screens, no tvs, no whiteboards. Nothing. The teacher says that there aren't enough books for the students. If there is a class of 18, only 15 books come.

Site 9:

This school is just at the very tail end of a wealthy, beach front community. The school also entails a catchment area of a nearby favela so the school population is quite mixed with upper middle class to extremely poor. The school itself is what I could now term "average". There have been clear additions to the infrastructure but they are small, a bit haphazard, and in some areas, have failed completely. For example there are parts of the roof that have holes in them. It's a rainy day so perhaps I'm noticing more than I would on a sunny day. The computer lab is tiny and I don't see anyone going in or out in the hour I wait for the interview to start. The principal says she hardly seen any changes. She insists that having more food and showers is absolutely necessary in terms of additions to the supports but she isn't getting those supports. This is the only full day school I've visited and although the Brazilian government is slowly phasing in full day schooling (8am-3pm) this is very very new. It may be why she wants showers so badly, the hot Brazilian summers must be very difficult to deal with without cooling/refreshing showers. Most Brazilians do shower several times a day in the summer in an attempt to stay fresh and clean and cool themselves down. She also notes that although the school closes at 4pm many parents are using it as a daycare service and do not pick up their kids until 6 or 7pm at night, knowing that the principal will stay with their kids until they are picked up. The interviewees are reluctant, one eventually declines to come down so although I thought I would have 2 interviewees, I only get one. We go to the very small, crowded staffroom. Teachers are eating the snack provided by the cafeteria.

Appendix IX: English and Portuguese Interview Schedule

Paraiba Interview schedule – English

Teacher Background:
How long have you been teaching in public schools?
What grade(s) do you teach?
What subjects do you teach?
What are your educational background and qualifications?

Administrative Background:
Does your school(s) participate in Prova Brasil?
Who supervises the test here?
Can you tell me a little bit about how Prova Brasil is administered in the school?

How do students feel about Prova Brasil? How seriously do they take the test?
Prova Brasil appears to be administered in most schools in Brazil but there are still a lot of students who do not take the test, why do you think that is? Which students are not taking the test?

How do teachers feel about the test? How seriously do they take it?
I've noticed that teacher response rates on Prova Brazil between 2007 and 2013 have decreased significantly (fewer teachers are answering the survey questions), why do you think that has happened? Do you answer the survey questions? Why or why not?

Context:
Why do you think Brazil administers Prova Brasil? What is its purpose?
How are the results of Prova Brasil used and publicized?
What do you think about how the results are used and publicized?
Do you think that Prova Brasil is able to show the conditions of schools accurately? Why or why not?
Do you think that the results of Prova Brasil show how students in Brasil are doing in school?

School Resources:
Have you seen changes in the amount and quality of school resources between 2007 and now?
What changes have you seen?
Do you think these changes are the result of Brazilian policies directly?
To what extent do you think the quality of the policies depends on who implements them and how?
What resources are most important to you in your classroom?
Have you noticed any changes in these resources from 2007 to now?
Statistical analyses suggest that technological resources like the internet and computers are most important in Brazilian schools, what do you think of these results?
Statistical analyses suggest that infrastructure was important, but is becoming less important as general infrastructure improves, what do you think of these results?

Teacher Education:
Have you seen any changes the qualifications required to be a teacher since 2007?
Do you think the teacher education programs are useful? Are they improving? Are teachers becoming more qualified?
Do you think these changes are the result of Brazilian policies?
What teacher education and professional development activities do you think are most useful to improving teaching?
Statistical analyses suggest that teacher qualification isn't important, what do you think of these results?

END

Paraíba Interview schedule - Portuguese

Professor:
Quanto tempo você tem sido ensinar nas escolas públicas?
O que grau(s) você ensina?
Que temas você ensina?
Quais são as suas habilitações e qualificações?

Fundo administrativo:
A sua escola(s) participar na Prova Brasil?
Quem controla o teste aqui?
Você pode me falar um pouco sobre como a Prova Brasil é aplicada na escola?

Como os alunos se sentem sobre Prova Brasil? A seriedade do que fazer o teste?
Prova Brasil aparece para ser administrada na maioria das escolas no Brasil, mas ainda há um grande número de alunos que não fazer o teste, por que você acha que é? Qual sao os estudantes que não estão fazendo o teste?

Como os professores se sentem sobre o teste? A seriedade com que eles levam?
Eu tenho notado que as respostas de professores no Prova Brasil, entre 2007 e 2013, diminuiu de forma significativa (menos os professores estão respondendo as perguntas da pesquisa), por que você acha que aconteceu? Você responde as perguntas da pesquisa? Por quê ou por que não?

Contexto:
Por que você acha que Brasil administra Prova Brasil? Qual é o seu objetivo?
Como são os resultados da Prova Brasil utilizado e divulgado?
O que você pensa sobre a forma como os resultados são utilizados e divulgados?
Você acha que a Prova Brasil é capaz de mostrar as condições das escolas com precisão? Por quê ou por que não?
Você acha que os resultados da Prova Brasil mostram que os estudantes no Brasil estão fazendo na escola?

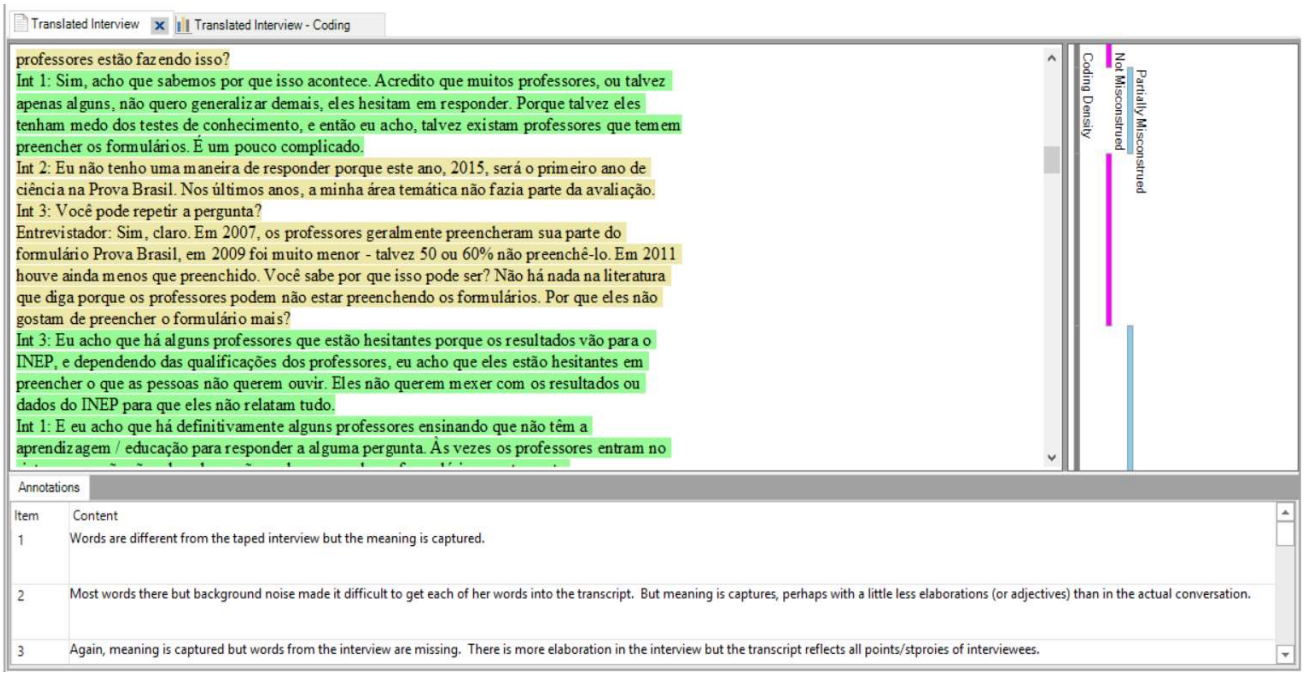
Recursos da escola.
Você já viu as alterações na quantidade e na qualidade dos recursos da escola entre 2007 e agora? Que mudanças você já viu?
Você acha que essas mudanças são o resultado de políticas brasileiras diretamente?
Em que medida você acha que a qualidade da política depende de quem implementa-las e como?
Quais são os recursos mais importantes para você na sua sala de aula?
Você notou alguma alteração no que diz respeito a esses recursos de 2007 até agora?
Análises estatísticas sugerem que os recursos tecnológicos como a internet e os computadores são mais importantes nas escolas brasileiras, o que você acha desses resultados?
Análises estatísticas sugerem que a infra-estrutura foi importante, mas está a tornar-se menos importante, como infra-estrutura geral melhora, o que você acha desses resultados?

Formação de professores:
Você já viu qualquer alteração da qualificação necessária para ser um professor desde 2007?
Você acha que os programas de formação de professores são úteis? Eles estão melhorando? Os professores estão cada vez mais qualificados?
Você acha que essas mudanças são o resultado da política brasileira?
Que formação de professores e desenvolvimento profissional atividades você acha que são mais úteis para melhorar ensino?
Análises estatísticas sugerem que qualificação do professor não é importante, o que você acha desses resultados?

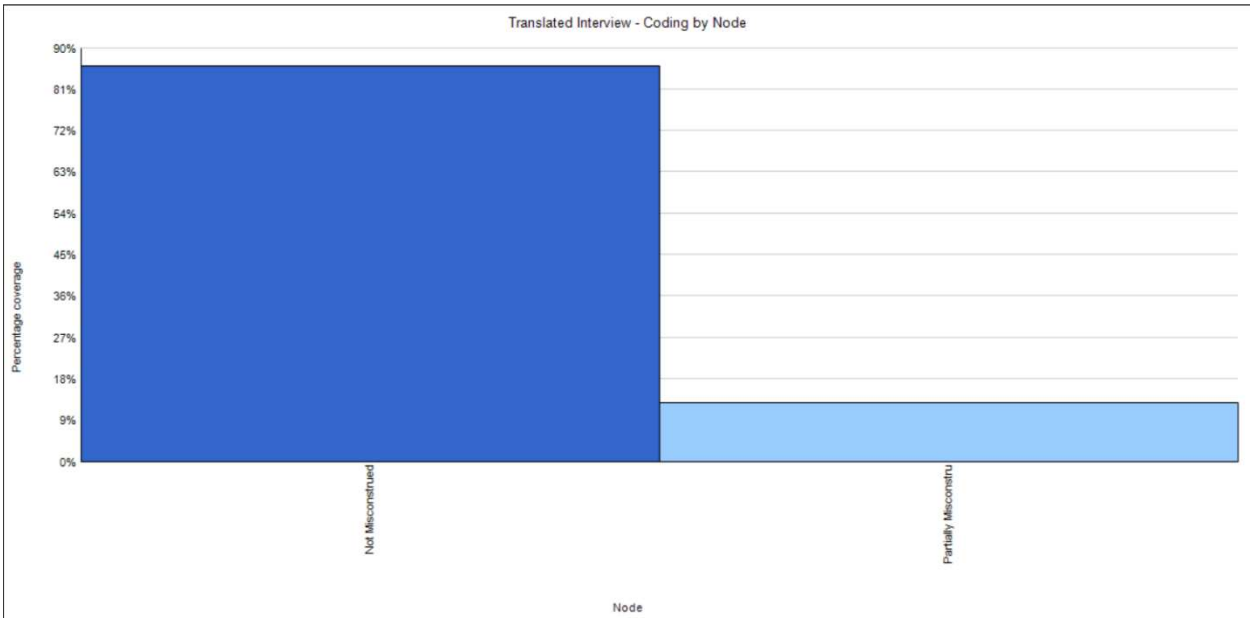
FINAL

Appendix X: Sample of Back-translation and Coding for Reliability

Below is a screen capture of the back-translation coding of the interview demonstrating coding stripes and associated highlighted text and the annotations associated with the areas coded "partially misconstrued".



Below is the summary of coding of the back-translated interview by code. The bar graph illustrates that 87% of the back-translated interview was coded as “not misconstrued” and 13% is coded as partially misconstrued.

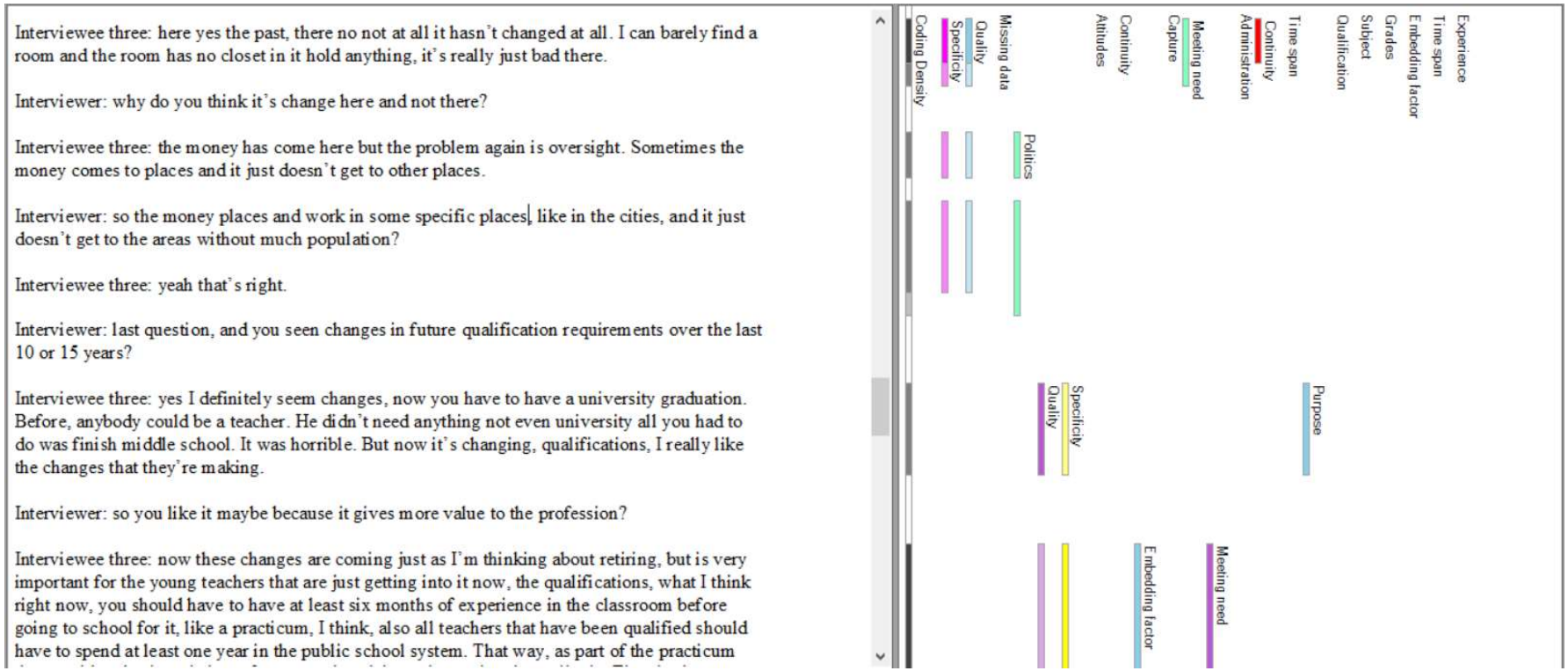


Appendix XI: Sample of Re-coded Interview by Peer Researcher

Table illustrating Cohen's kappa coefficient for the re-coded interview. The codes not found in this interview were Resources 'embedding factor' and Teacher Qualification 'purpose' and 'time span'. Resources – stage 'continuity' was not found to be a reasonably reliable code in this interview, and neither was Resources – differentiation 'embedding factor'. The reasons for this are addressed in the text of the these. All other codes were found to be reliable.

Node	Source	Source	Source Size	Kappa	Agreement (%)	A and B (%)	Not A and Not B (%)	Disagreement (%)	A and Not B (%)	B and Not A (%)
Context\Capture	Field	Intern	15760 chars	0.7247	97.84	2.99	94.85	2.16	0.03	2.13
Context\Politics	Field	Intern	15760 chars	0.3936	91.33	3.35	87.98	8.67	2.03	6.64
Resources\Differentiation\Embedding factor	Field	Intern	15760 chars	0	99.21	0	99.21	0.79	0	0.79
Resources\Differentiation\Meeting need	Field	Intern	15760 chars	0.1445	95.91	0.36	95.55	4.09	4.09	0
Resources\Focus\Purpose	Field	Intern	15760 chars	1	100	0	100	0	0	0
Resources\Focus\Specificity	Field	Intern	15760 chars	0.7428	91.31	17.16	74.16	8.69	5.38	3.31
Resources\Quality	Field	Intern	15760 chars	0.901	96.59	20.38	76.21	3.41	1.76	1.64
Resources\Stage\Continuity	Field	Intern	15760 chars	-0.0185	96.25	0	96.25	3.75	1.55	2.2
Resources\Stage\Time span	Field	Intern	15760 chars	0.721	98.84	1.54	97.3	1.16	0.01	1.15
Teacher Background\Experience	Field	Intern	15760 chars	0.9697	99.99	0.1	99.89	0.01	0	0.01
Teacher Background\Grades	Field	Intern	15760 chars	1	100	0.84	99.16	0	0	0
Teacher Background\Qualification	Field	Intern	15760 chars	0.9417	99.89	0.93	98.95	0.11	0.11	0
Teacher Background\Subject	Field	Intern	15760 chars	0.8996	99.84	0.72	99.12	0.16	0.16	0
Teacher Qualification\Differentiation\Embed	Field	Intern	15760 chars	0.8117	98.24	4.04	94.2	1.76	0.01	1.76
Teacher Qualification\Differentiation\Meetin	Field	Intern	15760 chars	0.9992	99.99	4.04	95.96	0.01	0.01	0
Teacher Qualification\Focus\Purpose	Field	Intern	15760 chars	0	98.08	0	98.08	1.92	0	1.92
Teacher Qualification\Focus\Specificity	Field	Intern	15760 chars	0.7053	95.62	5.84	89.77	4.38	4.38	0
Teacher Qualification\Quality	Field	Intern	15760 chars	0.4583	92.29	3.68	88.61	7.71	7.71	0
Teacher Qualification\Stage\Continuity	Field	Intern	15760 chars	0.4988	95.62	2.34	93.29	4.38	4.38	0
Teacher Qualification\Stage\Time span	Field	Intern	15760 chars	0	99.45	0	99.45	0.55	0	0.55

Sample of coded interview:



Appendix XII: Sample of a Coded Interview

and as poor and as rural as you can get and the school is outstanding. I would describe it as excellent by Brazilian terms.

¶1191:

¶1192: Interview with 1 female teacher. Interview is 55min and 37 sec.

¶1193:

¶1194: Interviewer: How long have you been teaching in public schools here in Brazil?

¶1195:

¶1196: Int: On the order of 19 years. INTERVIEWEE12

¶1197:

¶1198: Interviewer: 19 years. Wow. It's a long time.

¶1199:

¶1200: Int: Yes, but I think every year is different, new. The student, I think that students are, I don't know, I don't know what's happening but it seems students are losing the will to study. We used to have nothing but we studied more, and now students have so much and they study so much less. They don't want.

¶1201:

¶1202: Interviewer: Interesting. Many of the people I have been talking to have said this.

¶1203:

¶1204: Int: You see? It's a question, a national question, this line of of change, I think it's very…

¶1205:

¶1206: Interviewer: They say that you used to have work so hard just to be able to go to school…

¶1207:

¶1208: Int: Yes! This is it!

¶1209:

¶1210: Interviewer: And also, if you went to school your parents didn't collect the money you could have made, so they were really saying that it's more important to study than to work. So they valued it. Now, everyone has to go to school, but there isn't the value.

¶1211:

¶1212: Int: Yes, I think this is it, but you know, nobody really knows. We have no research on this. And I think it's done to try to create a better future, right?

¶1213:

¶1214: Interviewer: Yes. And what grades do you teach?

¶1215:

¶1216: Int: 1st to 6th grade.

¶1217:

¶1218: Interviewer: And what subjects do you teach?

¶1219:

¶1220: Int: I teach all the disciplines. Except English and Spanish. I teach everything else?

¶1221:

¶1222: Interviewer: And what are your qualifications?

¶1223:

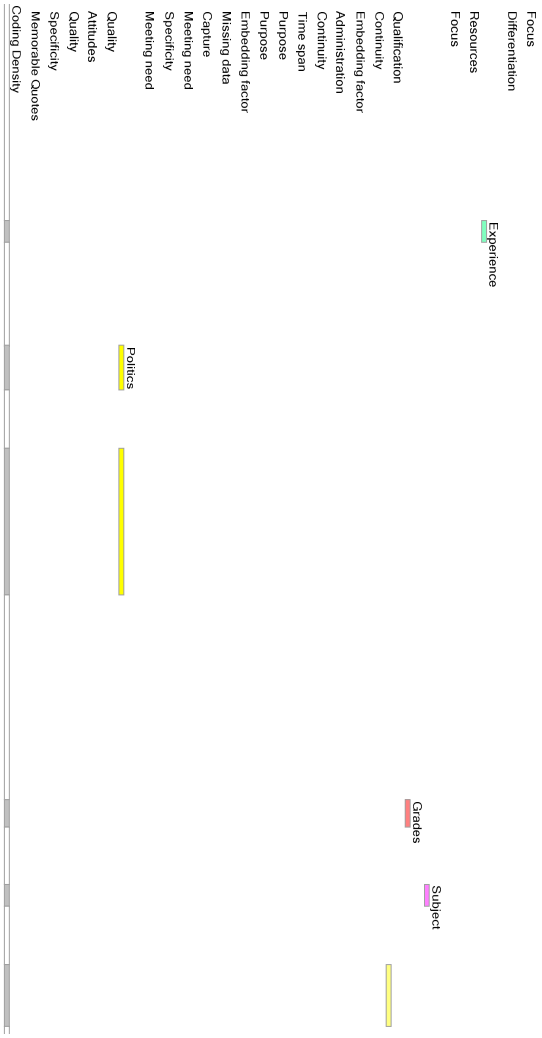
¶1224: Int: I have all the way up to a specialization.

¶1225:

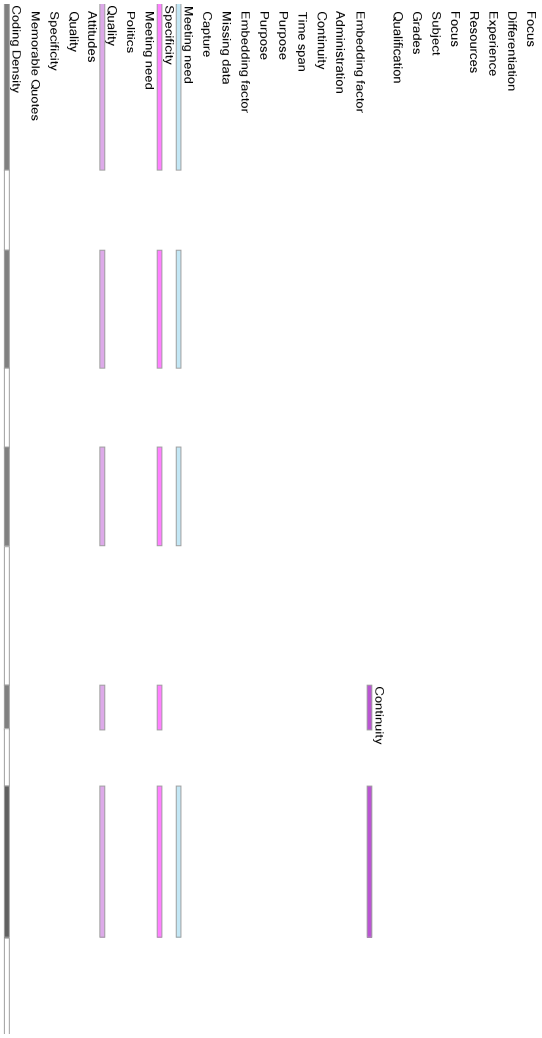
¶1226: Inteviewer: Oh OK. So you have an undergraduate degree, and then a specialization?

¶1227:

¶1228: Int: Yes, I have an undergraduate degree, and a specialization, and I really want to do a Masters degree too. I really want to do a Masters degree but the conditions under which they are



offered don't work. There are subsidies to study, but the institutions are private that offer them and it costs. If there was a government program that offered one, let's say, that we didn't pay or that we got a salary to do. It would be so valuable to have teachers who are able to come together and I think we would learn because we can teach each other. This is very important.
¶1229:
¶1230: Interviewer: DO you mean it's important for teachers to get together to go the Masters program instead of doing one online?
¶1231:
¶1232: Int: Yes, exactly. It's the best to have people you're talking to right there. Just to talk about what's going on from day-to-day in the classroom. It's very important. This is really good, it would be great to be able to, let's say, go over these regulations with other teachers. For example, a Masters, a proper MEC knows that that teachers need time to talk to each other, not alone studying little things in their own spaces. Why? Like I said, 1st, 2nd and 3rd grade, they do those little tests, the PINAC, and I think they're good those things.
¶1233:
¶1234: Interviewer: What is PINAC?
¶1235:
¶1236: Int: PINAC, it's also new to us, what's it for? It's a study that was done, where we all got together, the teachers from all of the municipalities, right? All the teachers of the 1st, 2nd, and 3rd grade, and they paid us 200 Reals. It was paid but it also was a way of learning. And it was of value, I think.
¶1237:
¶1238: Interviewer: OK.
¶1239:
¶1240: Int: But… (hand gesture)
¶1241:
¶1242: Interviewer: 200 is not really a lot…?
¶1243:
¶1244: Int: It's only 200. But all the teachers are, there are teachers that thought it was good, you know? But, it was a really short program. It looks like it's over. It's not here anymore.
¶1245:
¶1246: Interviewer: So there isn't this system anymore…?
¶1247:
¶1248: Int: No, we don't have it anymore. It was only for the 1st, 2nd, and 3rd grades. The 4th grade, it didn't have anything to do with that.
¶1249:
¶1250: Interviewer: Ok interesting.
¶1251:
¶1252: Int: The program should be extended. And maybe the amount paid should be a bit higher. Certainly.
¶1253:
¶1254: Interviewer: This school participates in Prova Brasil?
¶1255:
¶1256: Int: Yes, we participate.
¶1257:
¶1258: Interviewer: I have seen in the data, Prova Brasil is supposed to get all students, each classroom with more than 20 students, which is almost all of them.
¶1259:



¶1260: Int: Yes, you're right

¶1261:

¶1262: Interviewer: But, given the number of students in the state and the number of students actually filling out the test is far less. Maybe 60% of the total student population. What do you think it happening with the rest of the 30 or 40%? Why do you think there are students not doing the test? Is it because they don't take it seriously? Is it an administrative issue? What do you think?

¶1263:

¶1264: Int: Look, it's not an administrative problem. The administration in this school, in all school there are issues of student absence, this just happens. Nothing is perfect. But in our municipalities, this is an issue. We have meetings, 2 or 3 times a year, and we all speak the same language [we're all on the same page]. It's like this, students today they don't want much. Like I was saying to you. There is a problem with motivation and interest on the part of the student at this point. Understand? Perhaps because they have so much now. I think. It's because they have lots of computers and so the books in our classrooms, because it is books in our classroom, well the teachers have their own computers, but there aren't computers in our classrooms for the students. So if you show them a lesson on the projector, like we have, even with awesome data, they just are looking at it without paying attention or taking notes. This is a phase that I think, the ability to write down what is being said, this phase, it is really important I think. It constructs the start, right, from 1st grade, no, from the time of early education, they are already learning something, right? Small things. I'm interested in these small things too. Students today, the games, they don't want to study anymore, like they did when I was in school. We didn't have so much make then, like I said. Few things, but we are interested in copying everything down, in understanding it, in doing homework when we got home, to ask the teacher questions like "teacher could you please repeat that because I didn't understand", and today, we just don't have this anymore. And this really disappointments me. You know? This is what I'll telling you, every year comes another thing, something new for me, something different, regarding something students are getting wrong because they aren't learning. But it's just this.

¶1265:

¶1266: Interviewer: Do you think it has anything to do with Prova Brasil not having any impact on their grade? Or that the marks of the students don't come back to them – do these things make a difference to how students treat the exam?

¶1267:

¶1268: Int: No, I don't think so. Because even though the student's mark doesn't come out, the school's mark does, right? This national test is to see the level, the right level, although I think it leaves something to be desired.

¶1269:

¶1270: Interviewer: Ok so they probably wouldn't take it more seriously if it was worth something to their grade?

¶1271:

¶1272: Int: No, I don't think so, but I guess I don't know. There needs to be another study on this!

¶1273:

¶1274: Interviewer: This question is a bit difficult. Other teachers had a lot of different opinions. I saw in the data that in 2007, the first year that data was oublished, most of the teachers filled out their forms, almost all of them, only 15% didn't. In 2009 it was much less, and in 2011 it



was even less. Why do you think that over this time, teachers are deciding not to fill out their surveys. Do you have any idea?

¶1275:

¶1276: Int: No, I have no idea! The thing is that the Prova Brasil comes, it's a national test, maybe the choice of the booklets of data that we work with could be one of the factors? You see one school could be working with one book, and another school working with another book, and perhaps the teacher just gets confused? It's like this, if the teachers worked on the same enormous project together, the project would be much better. The comprehension, well, it would just be easier for the teachers. But there is this, I don't know why, I have no idea why teachers wouldn't fill out their booklets. I guess they don't want to, right? I think that it has to be this. You know, in the places where it's a poor state, like ours, maybe you are of a certain political persuasion. I don't know, it could just not interest them. It could be their point of view.

¶1277:

¶1278: Interviewer: So, if the teachers felt that this test was important to them and to their state, then they would be more likely to fill it out.

¶1279:

¶1280: Int: The more that teachers invest in their profession, including the financial compensation of their profession, because each teacher has to give classes at 2 or 3 places and they really don't get a lot of money especially in a small place like our town. It could be this. Do you understand? Maybe filling out the test isn't worth it because of this.

¶1281:

¶1282: Interviewer: I understand. Interesting

¶1283:

¶1284: Int: That is just my thoughts, it's not fact.

¶1285:

¶1286: Interviewer: Yes, I understand. It's your thoughts that I'm interesting in.

¶1287:

¶1288: Int: This is just my thoughts, and I'm a little critical. But my critics are on what I see.

¶1289:

¶1290: Interviewer: There are other teachers that are saying the same as you. That this evaluation comes from way above them, and it doesn't have much to do with them or their lives. Other teachers also say that there are questions on there, like about drug trafficking and violence, that they don't want to fill out because the government knows which school is which and they don't want to get their students in trouble. So there are a lot of interesting and different ideas around this.

¶1291:

¶1292: Int: Interesting! I said, in Canada, do teachers make enough money so that they don't have to teach in more than 1 school?

¶1293:

¶1294: Interviewer: In Canada, our students go to school the whole day. So we are there from 8-3, and there are some teachers who go from school to school teaching, but generally speaking, if you are working every day, all day, yes you can make a decent living.

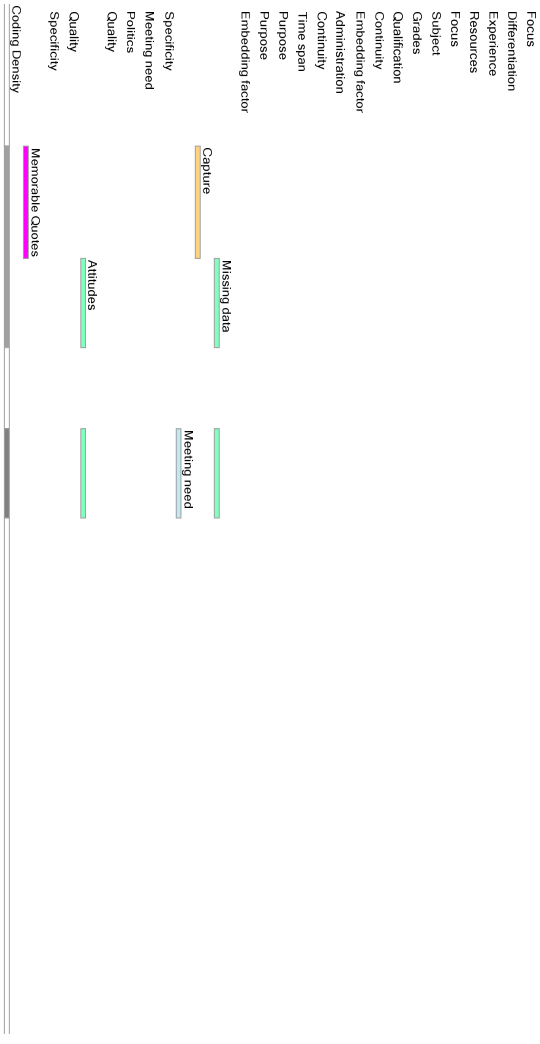
¶1295:

¶1296: Int: Here, if I work all the time, I only make $3200Reals per month. But that means I have to work all the time, so I don't have time to study at night and do better, make more.

¶1297:

¶1298: [private conversation continues]

¶1299:



¶1300: Int: It's as always, there is a lot of work. We want to work, but we want that work to be valued. Understand?

¶1301:

¶1302: Interviewer: Yes, teachers in Canada say the same.

¶1303:

¶1304: Int: And I think this is the area that could be better invested in. Here, they really could give more. And more for the students too. "I've done enough", that's what I hear my friends who are teachers say. I hear them say, I want to do more, learn more pedagogy, but I don't have the conditions to do it. And this is where it is now.

¶1305:

¶1306: Interviewer: What do you think about how the results of Prova Brasil are used and publicized? Like, the students' mark don't get back to you, but you get a school mark and lots of this data here [points to the school's actual Prova Brasil results]. Does this data reflect the conditions of the schools? And is it important that the information is disseminated like this?

¶1307:

¶1308: Int: I think, like this, I like to see each schools' results, to compare them. I do always look at the results at home when they come out. There are schools, good schools, like in Sao Paulo, or in the South, they are amazing schools, everything is great, with beautiful facilities, everything good, right? And then we have schools like this one in an area like this. And sometimes the results are the same! Or sometimes their results are worse! Understand? Not always, but it does happen. The students here, most of them, come here with very little ability in writing, in critical thinking no, because they do have some ability there, right? But let's take a student who lives right in the interior of Rio or Sao Paulo or in the South, and I'm not talking about all of them, but a good part, and they will have no understandings. It shocks the teacher a bit but we have to get over this, and know that they can be taught. In the Interior, it's like this, I don't have much of an understanding of the schools in the rest of the Interior of Rio de Janeiro or Sao Paulo, but I think it's not them same as this Interior. I think there are better conditions there in which to learn, better conditions of study.

¶1309:

¶1310: Interviewer: But you're saying that students here are doing just as well, even under these conditions.

¶1311:

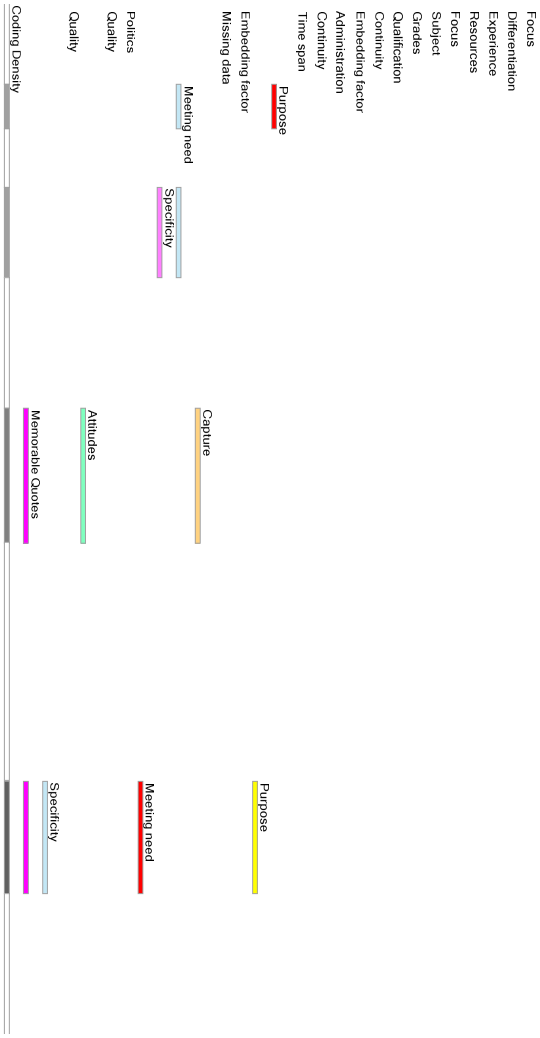
¶1312: Int: Yes, it's becoming equal. I'm not saying, there are students here that are better with computers than the teachers, but our difficulties can only be addressed with books, or with access to rooms like this one [points to interview location which is a resource room]. Students have a reason to stay in school, and we're going in the right direction. And we'll have to see how it goes.

¶1313:

¶1314: Interviewer: Do you think that Prova Brasil really reflects the conditions of the school? Like when you view the Portuguese results, this is where they are? That shows the level of knowledge and ability of the students?

¶1315:

¶1316: Int: This is what I'm saying, we all have and work with an annual plan, right? All teachers work with this same curriculum in the school. There are measures that we are supposed to be using. There are students that learn more and those who learn less. And we don't know, right, why? There are students that know and those that don't know, there are students that learn, there are students that are super intelligent, those who are deficient. Although the number of



those that are deficient is much less than it used to be. Now we have a psychologist we understand this more, we have a psychologist, we have someone that helps, that works with the students that have difficulties learning, and that's because sometimes otherwise they wouldn't learn anything. And the teachers think that in the classroom, when you have students with learning difficulties, it's difficult.

¶1317:

¶1318: Interviewer: So it more or less shows the level of the school?

¶1319:

¶1320: Int: More or less. It depends on the situation. Each particular locations has its challenges.

¶1321:

¶1322: Interviewer: These are details that the test doesn't really capture, does it?

¶1323: Int: Well from what I've seen, the test is called "Prova Brasil", Prova Brasil, so it's national. And I can't pretend to know if the statistics are useful for planning education nationally. Who participates? It's the teachers who come from all over, teachers who are prepared for Prova Brasil, on top of being responsible for basic education, on top of the books we go through, understand? Do they understand all of the difficulties of each school? We know they don't. In this classroom here, we have beautiful mathematics resources, right? And sometimes they come in here to learn. If I'm talking about polygons, well they're there! Right? So I say "polygon" and there they are. And we have books too to support it. Actually now I'm looking around there's more here I can use. If I could have these in my classroom to it would be great. If we could have them more, it would be great.

¶1324:

¶1325: Interviewer: I understand.

¶1326:

¶1327: Int: Sometimes they don't leave this room. Understand?

¶1328:

¶1329: Interviewer: Yes, I have heard other stories like this too. Like computers arriving without a tech support person, so the room with the computers stays locked.

¶1330:

¶1331: Int: Things, though, have gotten so much better. There has been a major advancement in the last 5 years. In the first place, we didn't have this room, we really had nothing. Books? We didn't have them.

¶1332:

¶1333: Interviewer: This leads me to my next question, have you seen changes over the last 19 years that you've been working?

¶1334:

¶1335: Int: Yes, I definitely have. Because of this [test], right? Students have the same books for 3 years. 3 years. Sometimes, right, the students, when they get there, to this time of the year, we have students that are intelligent and some that aren't. They don't know, they look lost, they don't understand much. I know this, I know that before, before doing the university that I did, I did my degree in pedagogy, and everyone said, everyone questioned, oh my god, I wish my school had had a psychologist, the things we have now, and so sometimes… I forgot what I was saying… right, now we have books for years 2016-2019 already! And when I told my friends in the program that, they couldn't believe we had so much. They all wanted to come here. But I'm telling you I don't see the same participation anymore in this help. There are still computers, but they don't work.



¶1336:

¶1337: Interviewer: So things have changed a lot but could continue to change too?

¶1338:

¶1339: Int: Teachers are jealous. It's a group of people totally un-unified. But we are here everyday, and they are here. I finish my day at 8pm. I get here early too. I have 2 classes in the morning, 2 in the afternoon, then I'm done. I work these 5 hours, then what? This is our day to day.

¶1340:

¶1341: Interviewer: Ok, over the last few years, this school has changed a lot, right?

¶1342:

¶1343: Int: Yes, a lot, a lot. It's to the point, I say, I graduated from this school, so this school is 30 years old already, and the changes have been huge, right? Big changes.

¶1344: Interviewer: In the infrastructure?

¶1345:

¶1346: Int: In the infrastructure. It's changed a lot, a lot. The level/qualification of teachers has improved a lot, it's now got all the primary grades and all the way through middle school. Before anyone who had graduated middle school could teach middle school, but not now, not anymore.

¶1347:

¶1348: Interviewer: Yes, all the teachers I have spoken with are very qualified.

¶1349:

¶1350: Int: Yes, very qualified.

¶1351:

¶1352: Interviewer: The literature says that in the past, anyone with any education could teach from their house in the interior?

¶1353:

¶1354: Int: Yes, when I was going through school, this is how it was. Only teachers of upper middle school came a little more prepared. But now the teachers in this area have a level of qualification that is much higher. So today, we have a quantity of students that is much larger, for example when I studied here, the primary school was only 4 classrooms, look the infrastructure of that school was also so much smaller, but it is was a good school. Now, things are changing, the students are changing, when I'm teaching…

¶1355:

¶1356: Interviewer: Specifically, what changes to the infrastructure and the resources have you seen in the last 15 years?

¶1357:

¶1358: Int: The first thing that has changed is the salary, it used to be even smaller! There wasn't a defined salary scale, and today we have that. We don't make much, but we certainly make more than we used to. Understand? Today, we know that teachers don't make much. Teachers today haave to teach in the morning, and the afternoon, teach in at least two places to get a reasonable wage I guess. If you only teach one session [i.e. morning session], then you only make about R$1400-1500 per month. Not much.

¶1359:

¶1360: Interviewer: OK, so when did the computers here arrive?

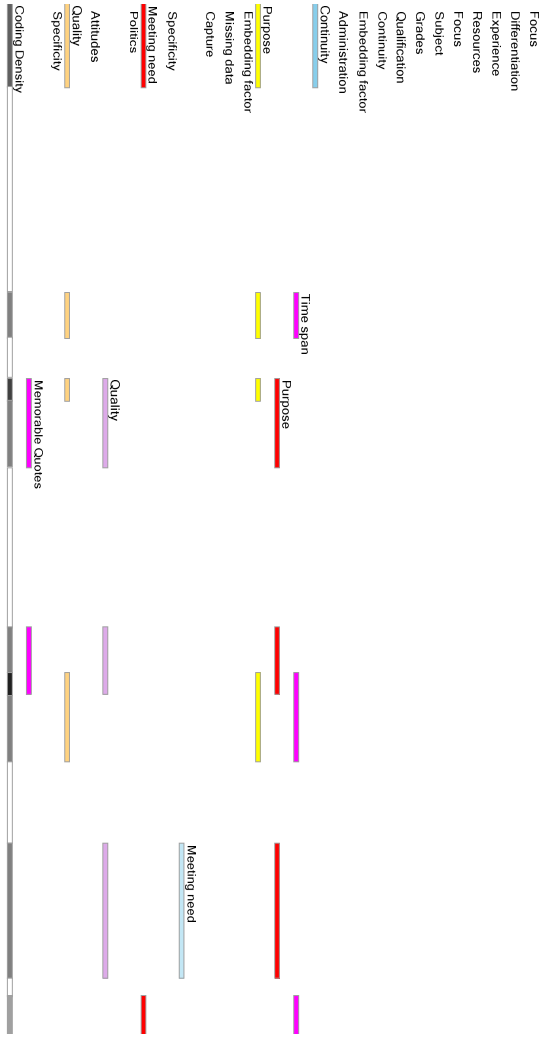
¶1361:

¶1362: Int: These resources came recently. Three years? Two years?

¶1363:

¶1364: Interviewer: But books you have.

¶1365:



¶1366: Int: Yes, we have books. We have 3 years worth of books, like I said before. Every three years we get more. And the used books we use for night school. For the adults who work during the day and want to study at night. Because they didn't study in the "right" time [childhood]. Understand?

¶1367:

¶1368: Interviewer: Yes. I understand. What are the resources you really need in the classroom but don't yet have?

¶1369:

¶1370: Int: Computers, projectors, to be able to explain things better. Math teachers, for example when they give a test and they want to go over the answer, it would be important to have these. And if all the classrooms could be adapted for this it would be great. Right now we only have a few locked up for the whole school. So if you need it you go there and it's being used already and you can't have it. Do you understand? The projector is like this. So it would be nice to have one in each classroom, that would be much better. Right, you think?

¶1371:

¶1372: Interviewer: Uh-huh.

¶1373:

¶1374: Int: Another example, you could use it with a computer to do a whole class presentation on some research, and everyone could see it. And let's not forget the written aspect, like I told you, some of the students that the primary level all the way to grade 6 although you don't always see it that late, but you always see it in the primary grades, they need to learn cursive writing from primary to the 6th grade. And you need to write to be able to read, and read to be able to write.

¶1375:

¶1376: Interviewer: Ok so the projectors would be good for visual interest in the class and to demonstrate writing for example.

¶1377:

¶1378: Int: Yes, for example, if I'm teaching about polygons, if I'm talking about perimeters, right now I can only point outside to the recreation space, but if I had a projector, if my classroom had been adapted with this equipment, there would be the conditions under which they could see, really see. I think.

¶1379:

¶1380: Interviewer: Do you think the internet would work here? To do these things you need internet. Does it work here?

¶1381:

¶1382: Int: Yes you need it, it works here. It actually works well because students are bringing their cell phones from home to school, and they look at things that are not educational. SO it gets slow I guess.

¶1383:

¶1384: Interviewer: Because students use the internet for non-educational things, it slows it down?

¶1385:

¶1386: Int: Yes, like facebook, and even when I was teaching the other day, one of my students was on his phone looking at porno films.

¶1387:

¶1388: Interviewer: Ok, interesting?

¶1389:



¶1390: Int: Right?! Some children have discipline issues. And for these we need to block certain sites.
¶1391:
¶1392: Interviewer: It isn't blocked?
¶1393:
¶1394: Int: Well you have to log in with a password, but who knows beyond that.
¶1395:
¶1396: Interviewer: Ok last question. It's about the qualification of teachers. The qualification and the policies of teacher qualification have changed a lot over the last 15 years. Now the federal government says you can't teach unless you have a university degree.
¶1397:
¶1398: Int: Yes, and here they say that too, but there are always a few teachers, we have some, who were just students here a few years ago that don't have anywhere to go or anything to do, and we help them by letting them teach here and there. And they get a small salary for it.
¶1399:
¶1400: Interviewer: So there are some without these qualifications that still teach?
¶1401:
¶1402: Int: Yes, they're in classrooms.
¶1403:
¶1404: Interviewer: But things are still changing a lot?
¶1405:
¶1406: Int: Oh my gosh, they've changed so much, so much, but there are still… you still run into it sometimes.
¶1407:
¶1408: Interviewer: So I drove 20 kms on a dirt road to get here. Really there isn't a road. Do you have opportunities for professional development out here that you think are good? So you have to have these qualifications but is there anything around here worth taking?
¶1409:
¶1410: Int: Thanks to God, there is.
¶1411:
¶1412: Interviewer: Where?
¶1413:
¶1414: Int: Not here. Today there are private Universities, like UVA, that you pay that have made their way out here. You can do a Masters here from there. But it's a Masters program that leaves something to be desired, understand? It's reasonable I think.
¶1415:
¶1416: Interviewer: So the public universities that are very good are not here?
¶1417:
¶1418: Int: No, they're not here. We don't have one, the closest is Campina Grande.
¶1419:
¶1420: Interviewer: That's a long way from here.
¶1421:
¶1422: Int: yes, but that's how far it is to a Federal university.
¶1423:
¶1424: Interviewer: The government has online courses for you…?
¶1425:
¶1426: Int: Yes but I don't think they're worth doing. It's like I said earlier, teachers need to speak to each other, when we can chat about what they're doing and what I'm doing, chat with my colleagues, this is when we speak the same language.
¶1427:



¶1428: Interviewer: So you're interested in courses that you do with other teachers on your weekends to make your teaching better with you colleagues?

¶1429:

¶1430: Int: Yes, with colleagues. Yes, even just 4 5th grade teachers in my study group worked.

¶1431:

¶1432: Interviewer: So if you did want to do a Masters program, you could get a small salary from the government to do it, right? But the salary is not what you're making now?

¶1433:

¶1434: Int: Yes, if you were to get a small salary, I think I could do it. But I've never heard of the government doing this. I think if the program exists, it needs to be better distributed between teachers. I think that like that course I took with PNAC, there was a meeting about this, to encourage us to go and get a bursary to go, we got a bursary for PNAC, and it was good professional learning. All teachers want to learn to be great, this I know. It would be great if teachers could work, get the bursary, and the great education that comes from there. Because everything that changes in the books now, we have to do. It has to be used in the classroom. Understand? If they decide something is going to be changed this week, we'll be teaching it next week. So we have to read it all through, regardless of the level. Today students have what? It is said that they have, that they already have, like, the tests like Prova Brasil taking stock of what's happening, and I think this IDEB is a bit embarrassing for my country. But I'll say it anyway, IDEB leaves a lot to be desired. It is not what we hoped it would be. It used to be better, but it isn't good anymore.

¶1435:

¶1436: Interviewer: Why? What happened?

¶1437:

¶1438: Int: Because the sums that IDEB does on top of [unable to understand words].

¶1439:

¶1440: Interviewer: I don't understand.

¶1441:

¶1442: Int: Like, they want all students to be in the classroom, right? They have the Bolsa to do this, to make sure the students are in the classroom with me. But students come only when they feel like it, and they have it in their heads that they will pass no matter what.

¶1443:

¶1444: Interviewer: In the past, if you didn't pass, you didn't go to the next level, right?

¶1445:

¶1446: Int: Yes, you didn't go to the next level. But now you have to pass them.

¶1447:

¶1448: Interviewer: Other teachers also complaining about this – that students should pass to the next grade if they don't pass the grade they're in.

¶1449:

¶1450: Int: Yes but the government says now that we have to pass them, understand? The federal government. I don't think it's right. That's how I understand it anyway.

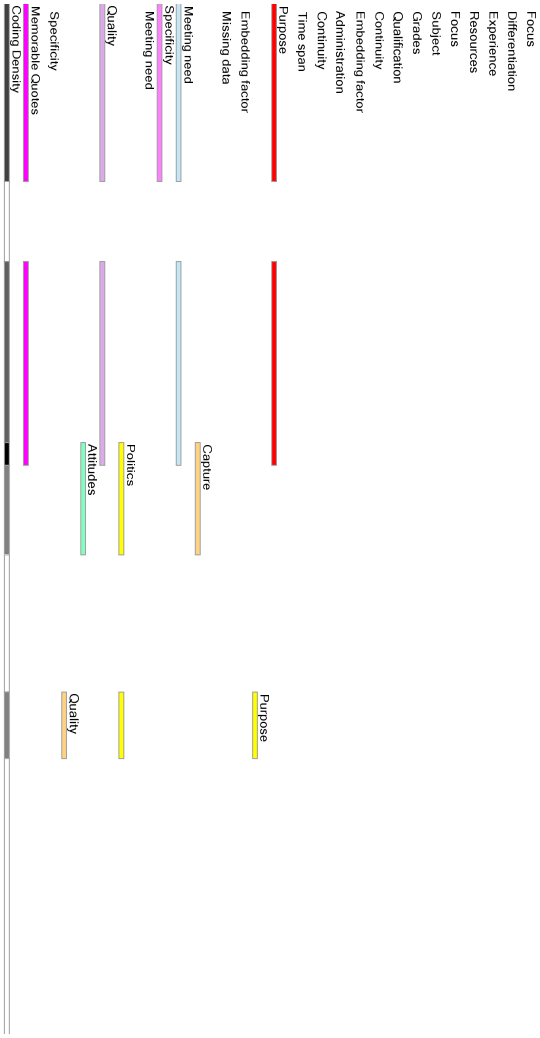
¶1451:

¶1452: Interviewer: So are there administrative issues still missing regarding resources, such as teacher qualification for example? Giving extra funds to Interior teachers who have to travel to university for example?

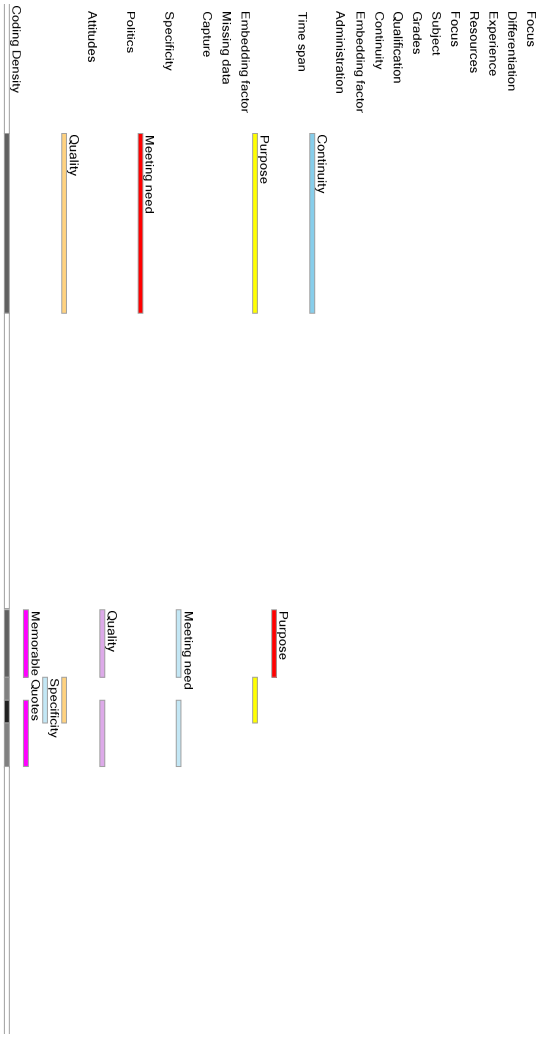
¶1453:

¶1454: Int: Yes! This. This is what I'm telling you!

¶1455:



¶1456: Interviewer: Ok so now I've understood you correctly?
¶1457:
¶1458: Int: Yes. In theory says one thing, real life is always different. It's more difficult. But it's getting better. We had no computers, now we have 10 here, 10 in another place and 10 somewhere else. It would be better if we had 30 here. Obviously. But in the last 5 years this place has changed so much. It's been a huge evolution in the last 5 years, like I told you. There were only 2 classrooms per grade when I studied here and now look at the size of us and the infrastructure that we have! We have school all day here now, all 3 time bands, and some old students give some lessons here for now, but every year things get more and more stabilized for the students.
¶1459:
¶1460: Interviewer: Please tell me if I'm wrong here, but this is what I see. This system has changed dramatically in the last few years. That is what everyone is saying. It has grown tremendously because now everyone has to go to school, so maybe when you grow so much and change so much in such a short period of time, there's probably going to be what we call "growing pains". It's getting better, but there are still some things that need to change.
¶1461:
¶1462: Int: It's more or less like this. Bigger areas have more for students to see and do, even in a small place like ours here, but we still have things for them. It's a small place here, the population is small. This is a city but it's a rural city. It's a city if you have about 6000 people, and there are about this here. Have you learned anything here?
¶1463:
¶1464: Interviewer: Of course! Any final comments?
¶1465:
¶1466: Int: I think teachers need to be seen as resources and invested in further. It would be great if teachers could just work at one school, even if they have to teach multiple grades. This would be a great investment in education and it would bring resources to each school. Infrastructure is much better, but there are some problems in the administration of other resources. The funds or grants for us to do extra qualification work need to be higher. We want to study more, I want to study more. They all want to do this, but currently the resources allocated for this make it impossible.
¶1467:
¶1468: Interviewer: Thank you.
¶1469:
¶1470:
¶1471:
¶1472:
¶1473:
¶1474:
¶1475:
¶1476:
¶1477:
¶1478:
¶1479:
¶1480:
¶1481:
¶1482:
¶1483:
¶1484: Seventh Entry
¶1485: Thursday August 13, 2015



Appendix XIII: CUREC

Note: This CUREC Application was approved in advance of the Transfer of Status exam and fieldwork in 2015.

University of Oxford

CENTRAL UNIVERSITY RESEARCH ETHICS COMMITTEE (CUREC)

CUREC/1A Checklist for the Social Sciences and Humanities

The University of Oxford places a high value on the knowledge, expertise, and integrity of its members and their ability to conduct research to high standards of scholarship and ethics. The research ethics clearance procedures have been established to ensure that the University is meeting its obligations as a responsible institution. They start from the presumption that all members of the University will take their responsibilities and obligations seriously and will ensure that their research on human subjects is conducted according to the established principles and good practice in their fields and in accordance, where appropriate, with legal requirements. Since the requirements of research ethics review will vary from field to field and from project to project, the University accepts that different guidelines and procedures will be appropriate. Please check the CUREC website to ensure that you have the correct form for your project.

This form does not cover research governance, satisfactory methodology, compliance with the requirements of publishers when administering their tests or questionnaires, or the health and safety of employees and students. As principal investigator, it is your responsibility to ensure that requirements in these areas are met. Please carry out a risk assessment of the project, in consultation with all researchers involved, using the checklist and CUREC's other documentation.

The use of an asterisk in this form indicates a phrase defined in the glossary. The glossary and further information on the University's research ethics procedures are available from the CUREC website:

http://www.admin.ox.ac.uk/curec

This form is designed largely for research that falls within the Divisions of Social Sciences and Humanities and which does not involve a high level of risk to the subjects. Elite interviews, field work and oral history are included in the CUREC process. Please take a moment to read through it and if you have any questions or doubts as to whether it is the appropriate form, please review Section A or consult the CUREC website.

Note on anonymised data and audit: you do not need to obtain ethical approval for your study if:

- you are using previously collected **anonymised data** about people which neither you nor anyone else involved in your study can trace back to the individuals who provided them (e.g. census data, administrative data, secondary analysis). Please refer to the definition of *personal data in the glossary and FAQ A4 for further guidance; or
- you are conducting research on behalf of or at the request of a service provider that matches the definition of *audit in the glossary.

If your research is audit or uses prior-anonymised data, please check this box: ☐X Phase 1 of 2

You do not need to seek ethical approval from CUREC, and you do not need to complete any more of this form. However, please check with your department's requirements, as some departments require you to lodge this form with them.

Office use only: IDREC Ref. No. _____

Date of confirmation that checklist accepted on behalf of IDREC: // //

SECTION A	Yes	No
1) Are you using research methodologies commonly used in biomedical or behavioural laboratory sciences?		X
2) Is there a significant risk that the research will induce anxiety, stress or other harmful psychological states in participants that might persist beyond the duration of any test or interview in which they are participating?		X
3) Will the research involve human participants recruited by means of their status as present or past NHS patients or their relatives or carers?		X
4) Does the research involve *human participants aged 16 and over who do not have *capacity to consent for themselves? See the Mental Capacity Act 2005		X
5) Is the study to be funded by the US National Institutes of Health or another US federal funding agency?		X

If you answered 'yes', please **stop** work on this checklist and

- **for questions 1 and 2**, complete CUREC/1 instead (available from www.admin.ox.ac.uk/curec);
- **for questions 3 and 4**, submit your proposal to the appropriate NHS ethics committee (see www.nres.nhs.uk and http://www.admin.ox.ac.uk/researchsupport/ctrg/ for further information);
- **for question 5**, or **if you answered 'yes' to questions 1, 2 or 4 and your research will take place outside the EU and is a biomedical study**, submit your proposal to OXTREC, which uses separate documentation. **Applications to OXTREC using this form will not be accepted.** If your research is not a biomedical study and does not have US funding, but will take place outside the EU, you may use this form to submit your application for approval to the Social Sciences and Humanities IDREC.

If you have answered 'no' to all questions in Section A, please complete Sections B-E. This form and any supporting materials should be typewritten.

SECTION B

Principal investigator/ supervisor/student researcher (title and name):	***Christine Paget***
Name of supervisor (STUDENT RESEARCH PROJECTS ONLY):	***Prof Jo-Anne Baird & Prof. Pam Sammons***
Degree programme, e.g. DPhil, MPhil, MSc (STUDENT RESEARCH PROJECTS ONLY):	***DPhil***
Department or institute:	***Department of Education***
Address for correspondence (if different):	***7 – 308 E 14th St, North Vancouver, BC V7L2N6 Canada***
Email and phone contact:	***christine.paget@education.ox.ac.uk 1-778-928-5937***
Title of research project:	***Exploring School Resource and Teacher Qualification Policies, their Implementation and Effects on Schools and Students' Educational Outcomes in Brazil.***

Title and brief lay description of *research (about 150 words), plus description (about 200 words) of the nature of participants (including the criteria for inclusion/exclusion & method of recruitment, how professional guidelines are being applied (if applicable) and use to which the results/data will be put.

Please describe how you will obtain informed consent, citing and attaching, where applicable, documentation produced in support of your application such as generic recruitment and advertisement material, participant information sheet(s), consent form(s) and defriefing document(s).

Title: Exploring School Resource and Teacher Qualification Policies, their Implementation and Effects on Schools and Students' Educational Outcomes in Brazil.

Description of Research: This study explores how recent Brazilian educational policies directed towards increased resources and teacher qualifications are related to improved Portuguese and Mathematics outcomes, and how these resource policy changes are perceived or experienced by teachers in the north-eastern state of Paraiba. This study is organized into two phases of inquiry. Phase I uses publically available, anonymous data from the Brazilian Ministry of Education to explore how increased school resources and teacher qualification requirements have affected Portuguese and Mathematics outcomes in Grade 4 and Grade 8 in the state of Paraiba. Phase II of this inquiry is guided by the findings of Phase I. Using the conclusions of Phase I to guide the development of an interview schedule for a subsample of Paraiban teachers, Phase II focuses on exploring the perceptions and experiences of teachers who are living through these major Brazilian educational policy changes. Phase II highlights the relationships between what the data may be telling us about the effectiveness of the Brazilian educational policies, and how the resources associated with these policies are experienced over time by teachers working in the educational system.

Description of Nature of Participants: Semi-structured interviews have been selected as the method of data gathering for Phase II. Teachers will be recruited on the basis of their experience with Prova Brasil as either grade 4 or grade 8 teachers of Portuguese and/or mathematics. The interviews will be audio recorded for later translation and transcription, and interview notes will be taken by the researcher. Research will be conducted over the course of 5 weeks (July-August 2015) and it is estimated that 20 interviews will be done over that period of time. The researcher will undertake a purposive sampling strategy in an attempt to cultivate a sample indicative the geographic, economic, and rural-urban spectrum of Paraiba. Teachers will be approached for interviews at school (their place of work) on the basis of their experience with Prova Brasil. All potential participants will be given an information sheet, in Portuguese, and will be asked for their written consent. All participants will be volunteers, and all data will be anonymous. Data will be stored on a secure laptop and a secure (encrypted) external hard drive. Data will be analysed in NVivo software and will be used to elaborate and clarify the findings of Phase I of the study, and summarize the experiences and perceptions of Paraibano grade 4 and grade 8 Portuguese and mathematics teachers with the Prova Brasil assessment and survey system.

Draft Interview Schedule, Participant Information Sheet, and Written Consent Form are attached to this application. They will be translated into Portuguese for use in the field by a Brazilian academic with proficiency in English.

List actual or probable location(s) where project will be conducted, if known:	State of Paraiba, Brazil
If your research involves overseas travel or fieldwork, have you completed and returned a travel risk assessment form? (Bear in mind that this may be necessary to ensure that the travel or fieldwork is covered by the University's travel insurance – see http://www.admin.ox.ac.uk/finance/insurance/travel/.)	**YES**
Anticipated duration of project:	___1.5_ months
Anticipated start date:	13 / 07 / 2015
Anticipated end date:	01 / 09 / 2015
Name and status (e.g. 3rd year undergraduate; post-doctoral research assistant) of others taking part in the project:	n/a
Please indicate what training on research ethics the researchers involved with this study have received, e.g. the title of the online or in-person course, and date completed (online training available at www.admin.ox.ac.uk/researchsupport/integrity/human/):	Foundations of Educational Research, University of Oxford, 2012-2013

SECTION C

Methods to be used in the study (**tick** as many as apply: this information will help the committee understand the nature of your research and may be used for audit).

	Please tick
Interview	✓
Questionnaire	
Analysis of existing records	
Participant performs verbal/paper and pencil/computer based task	
Measurement/recording of motor behaviour	
Audio recording of participant	✓
Video recording or photography of participant	
Physiological recording from participant	
Participant observation	

Covert observation	
Systematic observation	
Observation of specific organisational practices	
Other (please specify)	

SECTION D

Have you read one or more of the following professional guidelines and do you undertake to use the principles listed there as a guide for your own work? Please note that this is not intended to be an exhaustive list. Links to the guidelines listed below are included on the CUREC website.

	Please tick
***British Society of Criminology: Code of Ethics for Researchers in the Field of Criminology* [http://britsoccrim.org/new/?q=node/22**	
British Educational Research Association Ethical Guidelines for Educational Research [www.bera.ac.uk/guidelines]	✓
Academy of Management's Code of Ethics [www.aomonline.org/aom.asp?ID=&page_ID=242]	
Association of American Geographers Statement on Professional Ethics [www.aag.org/cs/resolutions/ethics]	
Oral History Society of the UK Ethical Guidelines http://www.ohs.org.uk/ethics.php	
American Political Science Association (APSA) Guide to Professional Ethics in Political Science (Section H) [www.apsanet.org/content_9350.cfm]	
Political Studies Association Guide to Good Professional Conduct [www.psa.ac.uk/psa]	
British Psychological Society Code of Ethics and Conduct [www.bps.org.uk/what-we-do/ethics-standards/ethics-standards]	
Ethics Guidelines of the Association of Social Anthropologists of the UK and Commonwealth [www.theasa.org/ethics/guidelines.shtml]	
Social Research Association: Ethical Guidelines [http://the-sra.org.uk/sra_resources/research-ethics/ethics-guidelines/]	
Statement of Principles of Ethical Research Practice from the Socio-Legal Studies Association [www.slsa.ac.uk/content/view/247/270/]	
Statement of Ethical Practice for the British Sociological Association [www.britsoc.co.uk/about/equality/statement-of-ethical-practice.aspx]	
Other professional guidelines (please specify):	

SECTION E

Please put a tick in the yes/no column as appropriate to indicate your response.

1) Will you obtain informed consent according to good practice in your discipline	**Yes**	**No**

before participation?	✓	
2) Will you ensure that *personal data collected directly from participants or via a *third party is held and processed in accordance with the provisions of the Data Protection Act?	**Yes**	**No**
	✓	
3) Does the research involve as participants *people whose ability to give free and informed consent is in question? ***Note: participants aged under 16 are generally considered to require consent of a parent or guardian (only answer 'no' to this question if you can cite one of the protocols listed under 'children'). For participants aged 16-17, consult FAQ C13***	**Yes**	**No**
		✓
4) As a consequence of taking part in the research, will participants be at serious risk of rendering themselves liable to criminal prosecution (e.g. by providing information on drug abuse or child abuse)?	**Yes**	**No**
		✓
5) Does the research involve the *deception of participants, as part of the investigation/experiment?	**Yes**	**No**
		✓
If any of your answers above are in a shaded box, please indicate whether those aspects of your project are fully covered by the following.		
6) Research protocol(s) which has/ve received IDREC/CUREC approval? ***If yes, please give protocol number(s):***	**Yes**	**No**
7) Professional guidelines that you will be following, as noted under Section D?	**Yes**	**No**

If any of your answers in Section E are in a shaded box and are not covered by a protocol or by professional guidelines, please complete CUREC/2, available to download from the CUREC website. Then submit both this form (you need not complete section F) and the CUREC/2 to the Social Sciences and Humanities IDREC.

If all your answers in Section E are in the unshaded boxes or your answers in shaded boxes are covered by a protocol or professional guidelines, complete Section F and submit this form and any accompanying documents to the Social Sciences and Humanities IDREC or to the relevant officer/committee at departmental level (see notes and address below).

FINAL CHECK

Please check each of the following before submitting the checklist. **If the appropriate supporting documentation is not included with your application, you will then be asked to provide this separately. This may well delay the ethical review process, and thus the start of your research.**

Have you completed Sections A-E? ✓☐

Have you defined all technical terms and abbreviations used? ✓☐

If you have produced any documentation in support of your application (which might include questionnaires, participant information, consent forms/form or note of procedure for recording oral consent, advertisements and surveys), have you attached a copy of these? ✓☐

Are all pages (including appendices and attachments) numbered? ✓☐

SECTION F

You can submit this checklist by email and/or as a signed hard copy; if it is being sent by email only, the checklist, and any email from the head of department or nominee separately endorsing its submission, must be sent from a University of Oxford email address (i.e. as a minimum, the checklist and supporting documents must be submitted by the head of department or nominee indicating his/her approval from a University of Oxford email account).

Complete this section only if you do not need to submit form CUREC/2.

I understand my responsibilities as principal researcher/supervisor/student researcher as outlined in the CUREC glossary and guidance on the CUREC website.

I declare that the answers above accurately describe my research as presently designed and that I will submit a new checklist should the design of my research change in a way which would alter any of the above responses so as to require completion of CUREC/2 (involving full scrutiny by an IDREC). I will inform the relevant IDREC if I cease to be the principal researcher on this project and supply the name and contact details of my successor if appropriate.

Signed by principal researcher/supervisor/student researcher:…Christine Paget.……

Date:…06 February 2015……

Print name (block capitals)……CHRISTINE PAGET……

Signed by supervisor:……(for student projects)

Date:……

Print name (block capitals)……

I understand the questions and answers that have been entered above describing the research, and I will ensure that my practice in this research complies with these answers, subject to any modifications made by the principal researcher properly authorised by the CUREC system.

Signed by associate/other researcher: ……

Print name (block capitals)……

Date ……

I have read the research project application named above. On the basis of the information available to me, I:

(i) consider the principal researcher/supervisor/student researcher to be aware of her/his ethical responsibilities in regard to this research;

(ii) consider that any ethical issues raised have been satisfactorily resolved or are covered by relevant professional guidelines and/or CUREC approved protocols, and that it is appropriate for the research to proceed without further formal ethical scrutiny at this stage (noting the principal researcher's obligation to report should the design of the research change in a way which would alter any of the above responses so as to require completion of a CUREC/2 full application);

(iii) am satisfied that the proposed project has been/will be subject to appropriate *peer review and is likely to contribute something useful to existing knowledge and/or to the education and training of the researcher(s) and that it is in the *public interest.

(iv) [FOR DEPARTMENTS/FACULTIES WITH A DEPARTMENTAL RESEARCH ETHICS COMMITTEE (DREC) OR EQUIVALENT BODY - PLEASE DELETE IF NOT APPLICABLE] confirm that this checklist (and associated research outline) has been reviewed by the Department's Research Ethics Committee (DREC)/equivalent body, and attach the associated report from that body.

Signed:……..
(Head of department or nominee e.g Chair of DREC, Director of Graduate Studies for postgraduate student projects)

Print name (block capitals)……

Date:……

If your research involves participants recruited by means of their status as current or former NHS staff, or the research will, in whole or in part, be carried out on NHS premises, use NHS facilities or assess NHS facilities or services, please see FAQ B3 (www.admin.ox.ac.uk/curec/faqs/).

Please check with your department about its procedures for the approval of CUREC forms. If your department indicates that the checklist should be submitted directly to the IDREC, please send it, together with any supporting documentation, to the following address(es), keeping a copy for yourself:

Secretary of the Medical Sciences IDREC Email: ethics@medsci.ox.ac.uk
Research Services
University of Oxford
Wellington Square
Oxford, OX1 2JD

Secretary of the Social Sciences and Humanities IDREC Email: ethics@socsci.ox.ac.uk
Research Services
University of Oxford
Wellington Square
Oxford, OX1 2JD

IDRECs and/or CUREC will review a sample of completed checklists and may ask for further details of any project.

Appendix XIV: Sample Consent Forms in English and Portuguese

University of Oxford
Department of Education
15 Norham Gardens, Oxford OX2 6PY
christine.paget@education.ox.ac.uk

Participant Information Sheet

1. **Study title**
   Exploring School Resource and Teacher Qualification Policies, their Implementation and Effects on Schools and Students' Educational Outcomes in Brazil.

2. **Background and aims of the study**
   This study explores how recent Brazilian educational policies directed towards increased resources and teacher qualifications are related to improved Portuguese and Mathematics outcomes, and how these resource policy changes are perceived or experienced by teachers in the north-eastern state of Paraiba. This study is organized into two phases of inquiry. Phase I uses publically available, anonymous data from the Brazilian Ministry of Education to explore how increased school resources and teacher qualification requirements have affected Portuguese and Mathematics outcomes in Grade 4 and Grade 8 in the state of Paraiba. Phase II of this inquiry is guided by the findings of Phase I. Using the conclusions of Phase I to guide the development of an interview schedule for a subsample of Paraiban teachers, Phase II focuses on exploring the perceptions and experiences of teachers who are living through these major Brazilian educational policy changes. Phase II highlights the relationships between what the data may be telling us about the effectiveness of the Brazilian educational policies, and how the resources associated with these policies are experienced over time by teachers working in the educational system.

   This research is being conducted by Christine Paget, a DPhil student at the University of Oxford. Christine's contact information is: Christine.paget@education.ox.ac.uk.

3. **Why have I been invited to take part?**
   You have been invited to participate in this research because you are a grade 4 or grade 8 teacher in Paraiba, Brazil and have taught Portuguese and/or mathematics, and are familiar with the Prova Brasil assessment and survey system.

4. **Do I have to take part?**
   Participation in the research is voluntary. You may withdraw yourself and your data from the study without penalty at any time by advising the researcher of this decision (see contact information above). You may ask questions about the study before deciding whether to participate.

5. **What will happen in the study?**
   If you chose to take part in this study, you will be asked to sign a consent form. You will then participate in a semi-structured interview with the researcher. This interview will be recorded using an audio recording device. The researcher will also take notes during the interview. At the end of the interview, the researcher will debrief you on her understanding of the interview topics and understandings. The interview will take no less than 20 minutes, and no more than 1 hour. The interview will take place in a location of your choosing. The researcher may then contact you in the following days for clarification of the conversation. This will take no more than 10 minutes.

6. **Are there any potential risks in taking part?**
   There are no potential risks associated with participation in this research, and the primary burden is on your time. Your participation is greatly appreciated and will help the researcher to understand how

University of Oxford
Department of Education
15 Norham Gardens, Oxford OX2 6PY
christine.paget@education.ox.ac.uk

Brazilian educational policies and resources are impacting your teaching practice, students, and schools.

7. **What happens to the research data provided?**
Any information you provide will be confidential and anonymous. Only the researcher will know your identity, all of the data entered into written files will anonymous. Data will be stored on a password protected personal laptop and stored on an encrypted hard drive. The data will be stored for 3 years after publication and then it will be destroyed. The researcher may use direct quotes in her research, but they will be anonymous (not linked to you or your name).

8. **Will the research be published?**
The research will be published internally (print and online) by the University of Oxford, in peer reviewed journal(s), and will be presented at major academic conferences. Your data will remain anonymous in all of these publications.

The University of Oxford is committed to the dissemination of its research for the benefit of society and the economy and, in support of this commitment, has established an online archive of research materials. This archive includes digital copies of student theses successfully submitted as part of a University of Oxford postgraduate degree programme. Holding the archive online gives easy access for researchers to the full text of freely available theses, thereby increasing the likely impact and use of that research.

If you agree to participate in this project, the research will be written up as a thesis. On successful submission of the thesis, it will be deposited both in print and online in the University archives, to facilitate its use in future research. The thesis will be published with open access.

9. **Who has reviewed this project?**
This project has been reviewed by, and received ethics clearance through, the University of Oxford Central University Research Ethics Committee.

Should participants wish to receive a copy of the research, this can be sent by email or mail by the researcher upon request.

10. **Who do I contact if I have a concern about the study or I wish to complain?**
If you have a concern about any aspect of this project, please speak to the relevant researcher (Christine.paget@education.ox.ac.uk) or their supervisor (jo-anne.baird@education.ox.ac.uk) who will do his/her best to answer your query. The researcher should acknowledge your concern within 10 working days and give you an indication of how he/she intends to deal with it. If you remain unhappy or wish to make a formal complaint, please contact the chair of the Research Ethics Committee at the University of Oxford (using the contact details below) who will seek to resolve the matter in a reasonably expeditious manner:

10.1.1. Chair, **Social Sciences & Humanities Inter-Divisional Research Ethics Committee**; Email: ethics@socsci.ox.ac.uk; Address: Research Services, University of Oxford, Wellington Square, Oxford OX1 2JD)

University of Oxford
Department of Education
15 Norham Gardens, Oxford OX2 6PY
christine.paget@education.ox.ac.uk

University of Oxford
Department of Education
15 Norham Gardens, Oxford OX2 6PY
christine.paget@education.ox.ac.uk

Consent Form

STUDY TITLE: Exploring School Resource and Teacher Qualification Policies, their Implementation and Effects on Schools and Students' Educational Outcomes in Brazil.

RESEARCHER DETAILS: Christine Paget - DPhil student – University of Oxford

PURPOSE OF STUDY: This study explores how recent Brazilian educational policies directed towards increased resources and teacher qualifications are related to improved Portuguese and Mathematics outcomes, and how these resource policy changes are perceived or experienced by teachers in the north-eastern state of Paraiba. This study is organized into two phases of inquiry. Phase I uses publically available, anonymous data from the Brazilian Ministry of Education to explore how increased school resources and teacher qualification requirements have affected Portuguese and Mathematics outcomes in Grade 4 and Grade 8 in the state of Paraiba. Phase II of this inquiry is guided by the findings of Phase I. Using the conclusions of Phase I to guide the development of an interview schedule for a subsample of Paraiban teachers, Phase II focuses on exploring the perceptions and experiences of teachers who are living through these major Brazilian educational policy changes. Phase II highlights the relationships between what the data may be telling us about the effectiveness of the Brazilian educational policies, and how the resources associated with these policies are experienced over time by teachers working in the educational system.

	Participant Initials
1. I have read the study information sheet and had the opportunity to ask questions and received satisfactory answers	☐
2. I understand that this project has been reviewed by, and received ethics clearance through, the University of Oxford Central University Research Ethics Committee	☐
3. I understand that my participation is voluntary and that they are free to withdraw themselves or their data at any time, without giving any reason, and without any adverse consequences	☐
4. I understand who will have access to personal data provided	☐
5. I understand how personal data will be stored eg according to the Data Protection Act; and what will happen to the data at the end of the project	☐
6. I understand how research will be written up and published.	☐
7. I understand how to raise concerns or make a complaint.	☐
8. I consent to being audio recorded.	☐
9. I understand that audio recordings will be used in research outputs eg academic conferences, journal publications, research archives.	☐
10. I agree to take part in the study.	☐

Name of Participant: _____

Signature: _____ Date: _____

Name of researcher: Christine Paget

Signature: _____ Date: _____

University of Oxford
Department of Education
15 Norham Gardens, Oxford OX2 6PY
christine.paget@education.ox.ac.uk

Universidade de Oxford
Department da Educação
15 Norham Gardens, Oxford OX26PY
christine.paget@education.ox.ac.uk

As informações do participante

1. **Título da pesquisa**
   Escola recursos e qualificação do Professor políticas: a sua aplicação e os efeitos sobre as escolas e os alunos os resultados educacionais no Brasil.

2. **Justificativa e objetivos do estudo**
   Este estudo explora como as políticas educacionais brasileiras recentes direcionadas para aumento dos recursos e qualificações dos docentes estão relacionados a uma melhor Português e Matemática dos resultados, e a forma como estas mudanças políticas de recursos são percebidas ou sentidas pelos professores do nordeste do estado da Paraíba. Este estudo está organizado em duas fases de inquérito. Fase I utiliza publicamente disponíveis, dados anônimos do Ministério da Educação do Brasil (Prova Brasil) para explorar como o aumento recursos da escola e qualificação do professor requisitos ter afetado Português e Matemática os resultados no grau 5 e grau 9 no estado da Paraíba. Fase II do presente inquérito é guiada pelas conclusões da Fase I. Usando as conclusões da Fase I para guiar o desenvolvimento de um cronograma de entrevistas para uma subamostra do Paraiban professores, **Fase II concentra-se em explorar as percepções e experiências de professores que estão a viver através destas grandes mudanças na política educacional brasileira. Fase II ressalta as relações entre aquilo que os dados podem estar a dizer-nos sobre a eficácia da política educacional brasileira, e como os recursos associados a estas políticas são sentidas ao longo do tempo pelos professores que trabalham no sistema educacional.**

   Esta pesquisa está sendo realizada por Christine Paget, DPhil aluno na Universidade de Oxford. Christine, informações de contato é: Christine.paget@education.ox.ac.uk .

3. **Por isso tenho sido convidado a participar?**
   Você tem sido convidado para participar em pesquisas, pois você é um grau 5 e/ou grau 9 professor na Paraíba, Brasil e tem ensinado Português e/ou matemática, e estão familiarizados com a Prova Brasil e sistema de pesquisa.

4. **Tenho que participar?**
   A participação na pesquisa é voluntária. Você pode retirar-se e os seus dados do estudo sem penalização a qualquer momento, aconselhando o pesquisador da presente decisão (ver informações de contato acima). Você pode fazer perguntas sobre o estudo antes de decidir-se a participar.

5. **O que vai acontecer no estudo?**
   Se você escolheu para participar neste estudo, você será solicitado a assinar um termo de consentimento livre e esclarecido. Você então vai participar de uma entrevista semi-estruturada com o pesquisador. Esta entrevista será gravada usando um dispositivo de gravação de áudio. O pesquisador irá também tomar notas durante a entrevista. Ao final da entrevista, o pesquisador falarão sobre o seu entendimento da entrevista os tópicos e os entendimentos. A entrevista não terá menos de 20 minutos, e não mais de 1 hora. A entrevista será realizada em um local de sua escolha. O pesquisador pode, em seguida, entre em contato com você nos dias seguintes para obter esclarecimentos da conversa. Este não terá mais do que 10 minutos.

Universidade de Oxford
Department da Educação
15 Norham Gardens, Oxford OX26PY
christine.paget@education.ox.ac.uk

6. **Existem quaisquer riscos potenciais em participar?**
   Não existem riscos potenciais associados com a participação nesta pesquisa, e o principal encargo é do seu tempo. A sua participação é muito importante e vai ajudar o pesquisador a compreender como as políticas educacionais brasileiras e os recursos estão afetando a sua prática docente, alunos e escolas.

7. **O que acontece com os dados da pesquisa?**
   Qualquer informação que você fornecer serão confidenciais e anónimas. Apenas o pesquisador irá conhecer a sua identidade, todos os dados inseridos em escritos arquivos serão anônimas. Os dados serão armazenados em um computador portátil pessoal protegido por palavra-passe e armazenado em um disco rígido criptografado. Os dados serão armazenados por um período de 3 anos após a sua publicação e, em seguida, ele será destruído. O pesquisador pode usar o direct cita em sua pesquisa, mas será anónimo (não ligados a você ou ao seu nome).

8. **Será que a investigação será publicado?**
   A pesquisa será publicada internamente (impressão e on-line) pela Universidade de Oxford, na revista oficial(s), e será apresentado nas principais conferências acadêmicas. Seus dados permanecerão anônimos em todas essas publicações.

   A Universidade de Oxford está comprometida com a divulgação da sua pesquisa para o benefício da sociedade e da economia, e no apoio a este compromisso, tem criado um arquivo online de pesquisa materiais. Este arquivo inclui cópias digitais do aluno teses enviado com sucesso como parte de uma universidade de Oxford pós-graduação programa. Segurando o arquivo on-line permite o fácil acesso para pesquisadores para o texto completo de livremente disponíveis teses, aumentando assim o impacto provável e utilização da investigação.

   Se você concordar em participar neste projecto, a investigação será escrito como tese. A bem-sucedida apresentação da tese, que será depositado em impressão e on-line no arquivo da universidade, para facilitar sua utilização em pesquisas futuras. A tese será publicada com acesso aberto .

9. **Quem tem examinado este projeto?**
   To seu projecto foi revisto e recebeu folga ética através, da Universidade de Oxford Universidade Central Comitê de Ética em Pesquisa.Se os participantes desejarem receber uma cópia da pesquisa, este pode ser enviado por e-mail ou correio, o pesquisador mediante pedido.
10. **Quem devo contactar, se eu tenho uma preocupação com o estudo ou gostaria de se queixar?**
    Se você tiver uma preocupação quanto a qualquer aspecto do projeto, por favor, fale para o pesquisador (Christine.paget@education.ox.ac.uk) ou seu supervisor (jo-anne.baird@education.ox.ac.uk) quem vai fazer o seu melhor para responder à sua consulta. O pesquisador deve reconhecer a sua preocupação no prazo de 10 dias úteis e dar-lhe uma indicação de como ele/ela pretende lidar com ele. Se você ficar insatisfeito ou que não deseja fazer uma denúncia formal, entre em contato com a presidente do Comitê de Ética em Pesquisa da Universidade de Oxford (usando as informações de contato abaixo) que vão procurar resolver a questão de uma forma razoavelmente rápida.
    10.1.1. Cadeira, **Ciências Sociais e Humanidades Inter-Divisional Comitê de Ética em Pesquisa**; e-mail: ethics@socsci.ox.ac.uk ; Endereço: Serviços de Pesquisa, Universidade de Oxford, Wellington Square, Oxford OX1 2JD)

Universidade de Oxford
Department da Educação
15 Norham Gardens, Oxford OX2 6PY
christine.paget@education.ox.ac.uk

Formulário de consentimento

TÍTULO DA PESQUISA : Escola recursos e qualificação do Professor políticas: a sua aplicação e os efeitos sobre as escolas e os alunos os resultados educacionais no Brasil.

PESQUISADOR DETALHES: Christine Paget - DPhil estudante - Universidade de Oxford

OBJETIVO DO ESTUDO: Este estudo explora como as políticas educacionais brasileiras recentes direcionadas para aumento dos recursos e qualificações dos docentes estão relacionados a uma melhor Português e Matemática dos resultados, e a forma como estas mudanças políticas de recursos são percebidas ou sentidas pelos professores do nordeste do estado da Paraíba. Este estudo está organizado em duas fases de inquérito. Fase I utiliza publicamente disponíveis, dados anônimos do Ministério da Educação do Brasil (Prova Brasil) para explorar como o aumento recursos da escola e qualificação do professor requisitos ter afetado Português e Matemática os resultados no grau 5 e grau 9 no estado da Paraíba. Fase II do presente inquérito é guiada pelas conclusões da Fase I. Usando as conclusões da Fase I para guiar o desenvolvimento de um cronograma de entrevistas para uma subamostra do Paraiban professores, **Fase II concentra-se em explorar as percepções e experiências de professores que estão a viver através destas grandes mudanças na política educacional brasileira. Fase II ressalta as relações entre aquilo que os dados podem estar a dizer-nos sobre a eficácia da política educacional brasileira, e como os recursos associados a estas políticas são sentidas ao longo do tempo pelos professores que trabalham no sistema educacional.**

	Participante Iniciais
1. Tenho lido o estudo folha de informação e teve a oportunidade de fazer perguntas e receber respostas satisfatórias	
2. Eu entendo que esse projeto tem sido revistos pela ética, que recebeu folga através, da Universidade de Oxford Universidade Central Comitê de Ética em Pesquisa	
3. Eu entendo que a minha participação é voluntária e que eles são livres para retirar -se ou seus dados a qualquer momento, sem dar qualquer razão, e sem quaisquer conseqüências adversas	
4. Eu entendo que terá acesso aos dados pessoais fornecidos	
5. Agora eu entendo como os dados pessoais serão armazenados por exemplo de acordo com a Lei de Proteção de dados; e o que vai acontecer com os dados no final do projecto	
6. Compreendo que a investigação será escrito e publicado.	
7. Agora eu entendo como a levantar preocupações ou fazer uma reclamação.	
8. EU consentimento para serem áudio gravado.	
9. Eu entendo que as gravações de áudio será utilizado na investigação saídas eg conferências acadêmicas, publicações, pesquisa os arquivos.	
10. Estou de acordo em participar do estudo .	

Nome do participante: _____

Assinatura: _____ Data: _____

Nome do pesquisador: Christine Paget

Assinatura: _____ Data: _____

Universidade de Oxford
Department da Educação
15 Norham Gardens, Oxford OX2 6PY
christine.paget@education.ox.ac.uk

Appendix XV: Node Summary Table

This summary table indicates the amount of transcript that was coded each node, and in total. This helps to determine how much of the interview transcript was used in the qualitative analysis of this research.

NODE	Number of Coding References	Number of Words Coded	Words Coded/Total Words in Transcript %	Words Coded/Words Quoted in Research Report %
Context\Capture	51	2934	10%	14%
Context\Politics	48	3245	11%	14%
Memorable Quotes	57	5219	17%	n/a
Prova Brasil\Administration	19	960	3%	n/a
Prova Brasil\Attitudes	64	4172	14%	n/a
Prova Brasil\Missing data	47	2830	9%	n/a
Resources\Differentiation\Embedding factor	27	3064	10%	6%
Resources\Differentiation\Meeting need	52	3204	10%	6%
Resources\Focus\Purpose	31	2104	7%	23%
Resources\Focus\Specificity	67	5340	17%	23%
Resources\Quality	86	5222	17%	20%
Resources\Stage\Continuity	14	958	3%	19%
Resources\Stage\Time span	16	1175	4%	19%
Teacher Background\Experience	19	70	<1%	n/a
Teacher Background\Grades	15	155	<1%	n/a
Teacher Background\Qualification	16	212	<1%	n/a
Teacher Background\Subject	16	106	<1%	n/a
Teacher Qualification\Differentiation\Embedding factor	12	493	1%	12%
Teacher Qualification\Differentiation\Meeting need	47	3077	10%	12%
Teacher Qualification\Focus\Purpose	12	1447	5%	13%
Teacher Qualification\Focus\Specificity	43	3066	10%	13%
Teacher Qualification\Quality	58	3052	10%	18%
Teacher Qualification\Stage	0	0	0%	11%
Teacher Qualification\Stage\Continuity	8	332	1%	11%

Appendix XVI: Academic Curriculum Vitae

Christine Paget

7 – 308 E 14th St
North Vancouver, BC
V7L 2N6

Phone: 778-928-5937
Email: christine.paget@education.ox.ac.uk

EDUCATION

2013-present — **Doctorate of Philosophy**, Dept of Education, University of Oxford

2012 - 2013 — **Master of Science in Education**: Research Design and Methodology, University of Oxford
Grade: Distinction (Equiv. GPA 4.0 or H1- First Class Honours)
Elected Course Representative to the Joint Consultative Committee of the Department of Education
Appointed Representative to the Joint Consultative Committee of the Social Sciences Division

2006- 2008 — **Master of Arts**: Curriculum Studies and Educational Administration, University of British Columbia.
Grade: A (Equiv. GPA 4.0)

2003 – 2004 — **Bachelor of Education**, University of British Columbia.

1998 – 2002 — **Bachelor of Arts**: History and Geography Majors, University of British Columbia.

PROFESSIONAL EXPERIENCE

Teaching

2005 – present — ***Full time Social Studies Teacher in West Vancouver School District***
History, Geography & Politics Grade 8-12
Treasurer and Communications Coordinator of the British Columbia Social Studies Teachers Association http://bcssta.wordpress.com/

2015 — ***Sessional Instructor at Simon Fraser University***
EDUC 471: Curriculum Development: Theory and Practice

Research

2013 — ***Research Assistant***
Oxford University Centre for Educational Assessment
Oxford University Families, Effective Learning, and Literacy

Consultant

2012 – present — ***Consultant to the British Columbia Ministry of Education***
Social Studies Curriculum Development Grades K-9
Graduation Requirements and Curriculum Development 10-12
Provincial Reporting Order & Classroom Assessment Consultation
Historical Wrongs Curriculum Revision Team

PUBLICATIONS

Baird, J., Hopfenbeck, T., Ahmed, A., Elwood, J., Paget, C., & Usher, N. (2014). *Predictability in the Irish Leaving Certificate Examination: Review of the Literature* (No. 1). Oxford, U.K.

Evangelou, M., Goff, J., Hall, J., Sylva, K., Eisenstadt, N., Paget, C., … Tracz, R. (2014). *Evaluation of Children' s Centres in England (ECCE) Strand 3: Parenting Services in Children' s Centres Research report*. Oxford, U.K.

Menezes, I. G., Duran, V. R., Mendonça Filho, E. J., Veloso, T. J., Sarmento, S. M. S., Paget, C. L., & Ruggeri, K. (2016). Policy Implications of Achievement Testing Using Multilevel Models: The Case of Brazilian Elementary Schools. *Frontiers in Psychology*, *7*(November).

Paget, C., Malmberg, L.-E., & Martelli, D. (2016). Brazilian National Assessment Data and Educational Policy: An empirical illustration. *Assessment in Education: Principles, Policy & Practice*, *23*(1), 98–125.

CONFERENCES AND WORKSHOPS

Presenter

October 2015	**BCSSTA PSA Professional Development Conference** Vancouver, BC Open Space Discussion on the New BC Curriculum
April 2013	**From the Personal to the Universal: Social Justice Symposium** Maple Ridge, BC 'The Comfort Women': Japanese Military Sexual Slavery 1931-1945
March 2013	**STORIES** University of Oxford Secondary Data Analysis Symposium: Data Access and Management
March 2013	**BC Teachers Federation New Teachers Conference** Vancouver, BC Assessment Strategies in Social Studies: Bridging Philosophy, Literature and Practice
Dec 2012, 2013	**International Human Rights Day Symposium** Vancouver, BC 'The Comfort Women': Japanese Military Sexual Slavery 1931-1945
Oct 2012	**BCSSTA PSA Professional Development Conference** Vancouver, BC Assessment Strategies in Social Studies: Bridging Philosophy, Literature and Practice
Aug 2012	**Central Okanagan Teachers Association Professional Development Conference** Kelowna, BC Assessment Strategies in Social Studies: Bridging Philosophy, Literature and Practice

Chair

2012-2017	**BCSSTA PSA Professional Development Conference** Vancouver, BC

Feb 2012, 2015	**Vancouver Holocaust Education Centre: Holocaust Studies Symposium** West Vancouver, BC
April 2013	**European Union Studies Professional Development Conference** Vancouver, BC

AWARDS AND SCHOLARSHIPS

2013 – present	Kellogg Progress Scholarship

LANGAUGES

English *native*	Portuguese *advanced*	French *intermediate*	Spanish *basic*

SOFTWARE

NVivo *advanced*	Mendeley *advanced*	Powerpoint & Prezi *advanced*
SPSS *advanced*	MLWin *basic*	

REFEREES

Professor Jo-Anne Baird, University of Oxford	joanne.baird@education.ox.ac.uk
Professor Pam Sammons, University of Oxford	pamela.sammons@education.ox.ac.uk

Appendix XVII: Ethical Reflection
Reflection on Ethical Implications of the Study

Introduction

The purpose of this section is to reflect carefully on the ethical implications of this study. The primary areas of reflection are the study's findings regarding district level discrepancies in resource levels and a reflection of the researcher's fieldwork experiences including the ethical implications of this study on its participants.

Resource Disparities Across Schools

School district level disparities in resources emerges as a theme in the qualitative data (Phase II) and is reported in the results of this study, including in section 3.9: *Points of Intersection* and section 5.3: *Educational Resources*. Teachers who participated in this study expressed concerns that some districts appeared to be better off than others including Mr. Red who believes that although the federal government of Brazil is sending the appropriate amount of money, local level school officials do not apply it as it should be applied. Ms. Orange also says that the money arrives from the federal government to the school district level but that a lack of oversight in the application of funds means that the money is applied in some areas but not in others. These comments were supported by the observations of the researcher and appear in the researcher's notes on multiple occasions including the Site 5 and Site 7 notes. These observations at the fieldwork sites and the emerging pattern in the data presented the researcher with a series of challenging ethical judgements to be made about how to conduct and report this study. This is an opportunity for the researcher to outline these decisions and reflect on them.

The prevalence of the comments on the discrepancies between school districts by the participants of this study and the observations of the researcher that supported these comments was important in the progress of this study. In order to honor these comments and explore the extent to which they could be demonstrated statistically, one of the main driving factors in the researcher's decision to re-construct the Phase I multilevel models was the desire to model the school district level (level 3) which was not modeled prior to the fieldwork (i.e. the first models were 2 level models at the student and school levels only). When the results of the Phase I 3 level models could attribute more and more of the explained variance to the school district level over time,

this was also reported in the Phase I results. At this point, the researcher was forced to make an ethical decision on the extent to which this discrepancy between school districts should be reported in the study. The decision was made to limit the reporting of these findings for a number of reasons. The first of these reasons is inherent in cross-national studies. An outsider's perspective, particularly in the context of a researcher from the developed world, Canada in this case, where the education system is ranked highly on international tests including PISA, and where the researcher is researching out of one of the most highly ranked and prestigious Universities in the world, Oxford in this case. Although the researcher has employed self-reflexive strategies, the researcher's experiences in Canada may have biased the researcher in her interpretation or expectations of the Brazilian context (Bridges, 2001). The power imbalance apparent in an outsider observing and reporting on corruption in a developing country with a nascent educational system, in the researcher's opinion, was more destructive than constructive in nature and this was not in line with the purpose or intentions of this study (Bridges, 2001). In addition, the publication of this thesis coincides with political turmoil in Brazil regarding corruption in the federal government including the jailing of one of the past Presidents of Brazil mentioned in this study. This enforced the belief of the researcher that findings regarding potential lack of oversight in financial matters concerning educational resources had the potential to be destructive in nature due to the volatile political context in which the results of this study find itself. In addition to the current political context, there is also historical precedent for the role of education in disrupting political administration as was the care of Paolo Freire's work in the north regarding the empowerment of the traditionally marginalized people, usually of African decent. The work of Freire had consequences for the people with whom he worked and in an effort to avoid any potential damage to the participants of this study, the researcher is confident in her decision to limit the reporting of school observations and findings related to a disparities in resource distribution. In this case, the dilemma outlined by Pring (2000) regarding the respect and confidentiality for the participant versus the pursuit of truth and the right of society to know, the researcher decided that the confidentiality and security of the participants of this research was of paramount concern. It is the researcher's belief that a Brazilian research is better suited to pursue this line of inquiry although that researcher may choose to refer to some of the the qualitative and quantitative results of this study as background to this venture as there is evidence that pertains to this line of inquiry in this study.

Access and Approach

In approaching participants to be a part of this study, an unorthodox approach was taken and this included some complexities related to a cross-national study. Due to the remote nature of the schools visited in this study, and difficulties regarding communication between the researcher and the schools prior to the fieldwork, the researcher adopted a "cold call" approach. This meant the researcher approached schools and teachers without contacting them prior to the fieldwork in July and August 2015. This had a number of impacts on how the researcher conducted the research and how the research may have impacted teachers.

First, access was achieved by approaching principals and explaining the study and asking the principal if the researcher would be able to approach teachers and ask them to join the study. The researcher used appropriate and standard inter- and intra- personal skills to facilitate approach, although the effect of these varied and one additional approach outside of normal practice occurred (Hammersley & Atkinson, 2007). In order to increase the chances of access, the researcher wore a colourful long dress. This was a deliberate attempt to appear non-threatening (feminine) but professional (as the dress was long and appropriately covered the body). Unfortunately, this did not have the desired effect and the researcher was asked on multiple occasions as she approached schools if she was a representative of 'the church'. The researcher is not clear how this dress and the perceived link between her and the church, at least during the first impression, may have impacted access and teachers' participation in the study. Further, during the field work, the researcher's twin one-and-a-half-year-old children and her husband were present. The researcher's husband does not speak Portuguese and was dependant on the researcher for communication and therefore chose to come along on the fieldwork on most occasions. Due to the four hour shifts of schools, on multiple occasions the researcher arrived at a school when the school was not yet in session and therefore had to wait outside for a while until teachers and principals arrived. In the meantime, her children played with the local children and the local children often started conversations with the researcher both in Portuguese (to ask questions about Canada) and English (to practice their English). This had an impact on access as when the teachers arrived the students had often already brought the researcher's children inside the school to show their friends and teachers, and this had an impact on how the

researcher was perceived by the principal and may have impacted how the teachers perceived the teacher. The fieldwork often took a very friendly and open tone, and the researcher's children may have had an impact on this reception. It may have also increased the chances of access as the researcher's children were already being toured around the school by students and sometimes even the principal. This was not something the researcher planned or encouraged, it often just happened and was the result of students' excitement around small children and perhaps small Canadian children.

In a different vein, the researcher became aware during the fieldwork of how her nationality and physical characteristics may have had an impact on her access. As the state of Paraiba is quite poor and remote, the number of foreign tourists is quite low. In the rural areas, most of the children and teachers had never met a Canadian before. Due to the large Indigenous and African ancestry in the area, the light skin hair and eyes of the researcher was a source of many conversations and comments. This may have had an impact on how the researcher was perceived and the motivations of the participants in joining this study. The accent of the researcher in Portuguese could have also impacted the way the researcher was perceived; the slight mispronunciation of words may have contributed to a non-threatening appearance. With the unintentional but frequent incorporation of the researcher's children into the field sites, the researcher's national origins, accent or slightly mispronounced words, and physical characteristics the researcher may have been granted access to sites under these perceived non-threatening conditions. This may have influenced teacher participation by making it less likely for them to decline to participate in the study. The interview took, on average, 20-25 minutes to complete and was often done on a teacher's break or while the principal covered their class for them. If the researcher was already in the school and was perceived to be friendly, if the principal of the school had already introduced the researcher and accepted her presence in the school, would teachers have felt uncomfortable saying "no" or declining the interview? Did the researcher impose unfairly on teachers' busy schedules and time with their students? Access imposes on the participants of research and the participants need to have a way of denying their time and experience to researchers (Basit, 2010). In an attempt to reduce this impact, the researcher was very clear about explaining that this was a voluntary activity and the teachers did not have to participate before sitting down to explain and sign consent forms and only then begin

the interviews. An effort was made to keep the interview to 20 minutes when the teachers indicated their time was limited and the researcher was successful in this endeavour. There is some evidence to suggest that teachers did feel comfortable not participating as one teacher at one site was asked and did decline. On two other occasions, the researcher did speed up the interview at the teacher's request and in those cases the interview was less than 20 minutes long and this appeared to be acceptable to the teacher.

In an attempt to give back to teachers in the field sites, the researcher stayed back at most sites after the interview and spoke to the teachers who were interested in practicing their English. This was a popular action and often she was invited to join teachers for lunch and speak with them in English and answer questions about teaching and living in Canada. The researcher also brought and gave away small Canadian tokens such as magnets and pens and playing cards to teachers at the school sites. Neither of these approaches can be considered a co-construction of value for the participant so although this research was intended to do no harm, it also was not clearly constructive or beneficial to the participants and therefore relied on the generosity of the participants (Bridges, 2001).

References

Basit, T. (2010). *Conducting Research in Educational Contexts*. London: Continuum.

Bridges, D. (2001). The Ethics of Outsider Research. *Journal of the Philosophy of Education*, *35*(3), 371–386.

Hammersley, M., & Atkinson, P. (2007). *Ethnography: Principles in Practice* (3rd ed.). Abingdon: Routledge.

Pring, R. (2000). *Philosophy of Educational Research* (2nd ed.). London: Continuum.