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Assignment Cover Sheet

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Contents

Assignment Cover Sheet.....	1
Contents	2
List of Tables	6
Acknowledgements	7
Abstract.....	8
Chapter 1: Introduction	9
1.1 Introduction	9
1.2 Rationale.....	9
1.3 Research Questions	9
1.4 Study Design	10
1.5 Dissertation Structure	11
Chapter 2: Literature Review	12
2.1 The Psychology of Dialogue	12
2.2 The Socio-Political Philosophy of Dialogue	13
2.3 Dialogic Programmes in The Classroom	14
2.4 Socio-Emotional Learning and Dialogue	16
2.5 Defining Empathy	18
2.6 Measuring Empathy	21
2.7 Empathy, Morality, Altruism & Pro-social Behaviour	23
2.8 Empathy and Education	26
2.9 Dialogue & Empathy in Education	27
2.10 The Present Study.....	29
Chapter 3: Methodology.....	31
3.1 Research Design	31
3.2 Initial Search Strategy Formulation	31
3.3 Search Terms	32
3.4 Eligibility – Inclusion/Exclusion Criteria	33
3.5 Systematic Searches	34
3.5.1 First and Second Searches	34
3.5.2 Third Search	35

3.5.3 Limitations	36
3.6 Screening	36
3.7 Hand Searches	36
3.8 Initial Extraction.....	37
3.8.1 Included Studies.....	37
3.8.2 Statistical Analysis.....	38
Chapter 4: Synthesis	39
4.1 Range of Study Designs	41
4.2 Methodological Rigour	43
4.2.1 Reporting Rigour	43
4.2.2 Design Rigour	43
4.2.3 Methodological Rigour	43
4.3 Conceptualisations of Empathy	44
4.3.1 Perspective Taking & Appropriate Behaviours.....	44
4.3.2 Empathy & Altruism	44
4.3.3 Historical Empathy	44
4.3.4 Misoperationalisation.....	45
4.4 Dialogic Pedagogy & Empathy	45
4.4.1 Dialogic Practices	45
4.4.2 Dialogic Content.....	47
4.5 Varying Characteristics of Dialogue-Based Programmes.....	47
4.5.1 Programmes and Their Theoretical Ideas	47
4.5.2. Intervention Length.....	49
4.5.3 Facilitator Fidelity	49
4.6 Data Collection: Measures and Methods	49
4.6.1 Quantitative Measures.....	50
4.6.2 Qualitative Methods	50
4.7 Quantitative Results: A Synthesis	51
4.8 Qualitative Results: A Synthesis	52
Chapter 5: Discussion	54
5.1 Overall Trends and Analysis	54
5.2 How is empathy operationalised?	55
5.3 What pedagogical practices are employed when seeking the development of empathy?	57

5.4 Is there quantitative evidence to suggest an association between dialogue-based practices and the development of empathy?	59
5.5 Is there qualitative evidence to suggest an association between dialogue-based practices and the development of empathy?	61
Chapter 6: Further Research.....	63
6.1 De-Equivocating Empathy	63
6.1.1 <i>Synthesising Conceptualisations of Empathy</i>	63
6.1.2 <i>Measuring the Multidimensional</i>	63
6.1.3 <i>Extensive Observations</i>	64
6.2 Linking Dialogic Pedagogy and Empathy	64
6.2.1 <i>Transparent Reporting</i>	64
6.2.2 <i>Arousing Empathy with Dialogic Pedagogy</i>	65
6.3 Future Research: A Proposed Intervention in the UK.....	65
6.3.1 <i>Study Design & Purpose</i>	65
Chapter 7: Conclusion.....	67
7.1 Limitations	67
7.1.1 <i>Systematic Searching</i>	67
7.1.2 <i>Quality Assurances</i>	67
7.1.3 <i>Procurement & Limitations of Included Studies</i>	67
7.2 Summary	68
References.....	69
Appendices.....	78
Appendix 1 – Dialogue & Empathy Outside of Educational Settings	78
Appendix 2 - Practical Guidelines Summary	80
Appendix 3 - Search Strategies	81
Appendix 4 - Excluded Search Strings	84
Appendix 5 - Search History Example (from Final Rayyan search).....	85
Appendix 6 - Ineligible Included Papers.....	103
Appendix 7 – Locations of Hand Searches	107
Appendix 8 – Example Extraction Summaries – Ampuero et al., (2015).....	108
Appendix 9 - Future Research: Intervention Plan.....	113
<i>Appendix 9a – Chapter 6: Further Research Continued</i>	113
<i>Appendix 9b - Pedagogical Breakdown and Systematic Procedure</i>	115
<i>Appendix 9c - Example Session Plan</i>	117

<i>Appendix 9d - Example Worksheet</i>	<i>119</i>
<i>Appendix 9e – Data Collection Methods, Purpose and Timeline.....</i>	<i>120</i>

List of Tables

Table 1 - Authors and Titles of Included Studies

Table 2 - Details of the Nine Included Studies

Table 3 – Shared Components of Dialogic Pedagogy

Table 4 – Dialogue-based Programmes Adopted

Table 5 – Qualitative Data Collection Methods

Table 6 – Qualitative Results

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Abstract

The present study reports a configurative narrative review of studies pertaining to dialogue-based pedagogical practices and programmes with empathy in middle-school aged children. A total of 596 studies from three databases were found and, from pre-determined criteria, it was then decided that the data from nine eligible papers would be extracted, synthesised, and analysed. The data found in these papers varied greatly in design, methodological rigour, and the operationalisation of empathy as an outcome measure. Thematic extractions relating to the conceptualisations of empathy; an exploration of dialogic pedagogical practices adopted when seeking empathy as an outcome measure, and an examination of the evidence reported in these nine papers ensued. It was found that three key practices were adopted: facilitated dialogue, goal orientated dialogue and the implementation of small, collaborative work. Overall, the data revealed that there was conceptual and theoretical work associating dialogic practices and empathic arousal, behavioural change, and empathic enhancement. However, there was not enough robust empirical evidence to justify this linkage. Therefore, conclusions were drawn from the data to suggest further empirical, particularly quantitative, studies were required to better understand the relationship between dialogue and empathy. Subsequent to this finding, a description of a future mixed-methods study is outlined.

Chapter 1: Introduction

1.1 Introduction

Dialogue and talk, as processes, are integral and primary forms of communication between humans and are required for humans to exchange and recreate knowledges (Mercer, 2008). Dialogic education practices have been shown to facilitate students' abilities to communicate with one another, engage these students in critical thinking and enhance socio-emotional understanding via this interaction (Alexander, 2017; Lipman, 1976; Pons et al., 2019). At the heart of this human interaction and communication lies empathy. The ability for one to recognise, cognate and react to another's emotions or needs is an ability often forgotten not only in education but, in the wider world (Bošnjaković & Radionov, 2018; Decety & Ickes, 2009; Nussbaum, 2001; Siddiqui, Gorard, & See, 2019). Its necessity in twenty-first century society grows as social discordance and inequality do the same. Therefore, being able to stimulate and enhance this process is of vital importance.

1.2 Rationale

The association between dialogue and empathy in education is indistinct. Although the importance of emotional communication is at the heart of many popular conceptualisations of empathy and the development of empathic behaviour (for instance, Hoffman, 2000 and Nussbaum, 2001), very little research has been undertaken on the importance of dialogue. Similarly, dialogue has been viewed as a process and pedagogy that enhances the individual's thought and understanding alongside enabling formal discussions to take place in classrooms (Lipman, 2003; Mercer & Howe, 2012). This is instead of using dialogue as a mechanism to increase the empathic thought processes of all students in that same classroom. Logically, if empathy is the understanding of another's emotions and then the motivation for one to appropriately change their behaviour (Decety & Ickes, 2009), then being given the opportunity to understand another's emotions tangibly and explicitly via dialogue will enhance the process of emotional understanding. However, without evidence, one cannot make this claim.

1.3 Research Questions

Therefore, initially mapping this field and examining how dialogue and empathy are operationalised (when used together) by researchers is of paramount importance. Particularly empathy, as empathy has a significant plurality in definition and often gets mistakenly used in the place of other related concepts (for instance, sympathy or compassion) (Batson, 2009; Maibom, 2014). Similarly, it is important to map specific pedagogical aspects and practices that are involved in this process too. Research into dialogic education and pedagogy is plentiful (as highlighted by Gorard, Siddiqui, & See, 2017) but, research into the effects of dialogic pedagogy on empathy development is not. Thus, one must examine if there are differences in teaching practices employed when seeking to stimulate and enrich the development of empathic thought processes. It is then also prevalent to juxtapose these practices and their successes in arousing and enhancing empathy. However, above all else, the claim of a relationship between classroom-based dialogue and the development of empathy requires both quantitative and qualitative evidence.

With these areas in mind, the following research questions will be considered throughout this review and will be discussed at all points of analysis:

1. How is empathy operationalised as an outcome variable when used in studies that use dialogue-based practices in a school environment?
2. Specifically, what pedagogical practices are employed when seeking the development of empathy and empathy-related constructs using dialogue-based practices?
3. Is there quantitative evidence to suggest an association between dialogue-based practices and the development of empathy and empathy-related constructs in a school environment?
4. Is there qualitative evidence to suggest an association between dialogue-based practices and the development of empathy and empathy-related constructs in a school environment?

1.4 Study Design

The original plan for this study was to be an intervention that utilised dialogic practices and then examined this interventions' effects on empathy both quantitatively and qualitatively. Unfortunately, due to the global COVID pandemic, this particular project had to be halted.

However, this allowed for the researcher to implement a desk-based study that would still seek to add to the literature surrounding dialogic pedagogy and empathy enhancement practices. It was decided that a systematic review would be adopted. This decision then led to the formulation of the above research questions and further informed the plans that were initially developed pre-pandemic. These adapted plans, informed by the findings and the gaps identified in the current review, for the future study may now be found in Appendix 9 and will be outlined in section 6.3.

Systematic reviews are thought to be one of the more rigorous methodologies in locating and analysing information to answer specific research questions alongside having high levels of applicability when it comes to policy and practice in education (Boland, Cherry, & Dickson, 2017; Gough, Oliver, Thomas, & Hobbs, 2013). The use of systematic review allows one to both conceptually and methodologically map the field with rigorous and repeatable practices (Gough, Thomas, & Oliver, 2012). This may be particularly advantageous in the early stages of the dialogue and empathy research domain if it shown to have limited research evidence. Furthermore, this review may contribute to being a conceptual guide for further research undertaken in this field.

1.5 Dissertation Structure

Firstly, this study begins with an examination of the literature on dialogue and empathy. Secondly, an explanation and description of the research methods adopted in this systematic review is given. Thirdly, the data gathered from shortlisted and retrieved articles is presented. Fourthly, a discussion of the results will ensue. Fifthly, further research in the field of dialogue and empathy in education is discussed. Lastly, the review finishes with a summary of the findings and the study as a whole.

Chapter 2: Literature Review

2.1 The Psychology of Dialogue

In its purest form, dialogue is simply a verbal exchange between multiple interlocutors and, in a classroom, this communication has the propensity to increase and re-develop knowledges (Mercer, 2008). Allowing one to transcend their immediate reality, purposeful dialogue has the power to change minds, both interpersonally and introspectively, via stimulating critical reasoning and enriching thinking skills (Freire, 2017; Lipman, 2003). Fundamentally, dialogue is a tool. Using the socio-cultural theories of Vygotsky, this form of social interaction becomes the tool with which children develop their understanding and reasoning (Mercer, 2008). However, it is important to note that Vygotsky used the term language and *not* dialogue because language is thought of as a cultural tool, i.e. for communication, but, also for the cognitive purpose of thinking (Mercer, 1995; Vygotsky & Cole, 1978). Therefore, dialogue describes the social exchange of language. Although, language then allows an individual to think and process the information shared in this exchange also.

Vygotsky's theories (Vygotsky & Cole, 1978) were reconceptualised by Wertsch (1979) who proposed that the communicative and social dynamism of dialogue (or 'speech' as Wertsch describes it, pertaining to the social, verbalisation of this language) is what allows this transition from the intrapsychological (cognition of information) to interpsychological processes (exchange of language). Mercer (2008) puts forth that it is this transition, produced via the process of dialogue, that allows children's thinking to develop and increases capacity for 'high-order' thinking and comprehension. Consequently, it can be understood that language is the tool that allows children to enhance their cultural knowledge and understanding but, also cognate this information; speech is the verbalisation of this tool and dialogue is the mechanism with which this speech is exchanged. This exchange is the process of social learning and consequently, the means of improving this same social learning.

Mercer (2008) further highlighted, in accordance with the work and studies in classrooms from Alexander (2017), Daniels (2001) and Wertsch (1979) (amongst others), that the functional structure of these verbal exchanges is as important as the cultural content that is discussed within. This logical, verbal exploration between interlocutors, when scaffolded by

educators, has been found to have positive outcomes on students reading comprehension, reasoning and mathematical problem-solving (Anderson et al., 2010; Daniels, 2001; Kim, Anderson, Nguyen-Jahiel, & Archodidou, 2007; Mercer, 2003; Rojas-Drummond & Mercer, 2003). The structure, direction and purpose given by an educator permits the student to better understand the information being provided, allowing the student to comprehend and reconfigure this knowledge where necessary (Alexander, 2017; Mercer & Howe, 2012). This then strongly suggests that scaffolded and structured dialogue is of paramount importance when seeking to stimulate and enhance the learning process of students in this way.

2.2 The Socio-Political Philosophy of Dialogue

The power of and the power within dialogue is something that has often been considered, particularly by socio-political educationalists. Critical pedagogists, perhaps most notably Paulo Freire and Henry Giroux, conceptualise dialogue in education as the equal exchange of knowledges from educator and student (Zembylas, 2013). The power equilibrium within these exchanges is crucial to this concept: with only one party dominating the conversation with only their knowledges means that knowledge, generally, cannot be truly re-developed, re-envisioned and re-actualised (Freire, 2017). Furthermore, this equal dialogue acts as the mechanism with which social, political and educational change must continually be enacted so as to maintain social harmony and empower the oppressed peoples in society (Freire, 2017; Giroux, 2011). This perspective of dialogue, as a constant mechanism of change and as the salient pedagogy and practice of an education system, requires consistent reflection and widespread dissemination in order to be effective in actualising this social transformation (Ferrada, 2020; Giroux, 2011). Dialogue is, in and of itself, at the heart of Critical Pedagogy not only as a means of teaching and learning, but also as an all-encompassing guide to how one should live their life.

There are some researchers that theoretically argue Critical Pedagogy can enhance students' social awareness, sense of justice and moral decisions - describing this process as the development of empathy. For example: Damianidou & Phtiaka (2016) argue that Critical Pedagogy can transform conceptions of democracy and therefore, a willingness to hear other's voices and perspectives. Ferrada (2020) describes in detail how Critical Pedagogy has developed Chilean students' ability to share experiences, thoughts and emotions. Zembylas

(2018) builds upon Freirean philosophy to construct a theoretical outline for a pedagogy of decolonialisation, driven by empathy, utilising dialogic practices in and out of the classroom. These studies all propose that Critical Pedagogy, through the process of reaching for and understanding what Freire (2017) describes as ‘*conscientização*’ (critical consciousness), can educate students to become more socially and emotionally aware of others and, thus, more empathetic.

One could argue that this theoretical construction of dialogue, as a phenomena inducing change, although essential for understanding the propensity and power dialogue can have, fails to address the practical implications of undertaking such educational modifications. Chambers (2019) argues that Critical Pedagogy lacks directiveness and thus, would virtually be impossible to implement in schools. Furthermore, Chambers (2019) suggests that if one were to adapt Critical Pedagogy to become directive (i.e. delivered and specifically taught by an educator), and therefore deliverable in most mainstream schools, this would be incompatible with the egalitarian and democratic ideals of the process. Without this structure and direction scaffolded for students by an educator, one may argue that, using the previously discussed socio-cultural theories of language by Vygotsky and others, the effectiveness on learning that dialogue has may be lost.

Fundamentally, Critical Pedagogy, and its construction of dialogue, is thought of as a tool to be used within Higher Education (HE) facilities and institutions (Ferrada, 2020). This is because it requires high levels of linguistic capability and conceptual knowledge in order to stimulate quality dialogue (Zembylas, 2018). However, it is argued by both Damianidou & Phtiaka (2016) and Giroux (2011) that if one takes the theoretical construction of dialogue as a mechanism of change and intertwines that with the underlying principles of Critical Pedagogy, i.e. social justice, awareness and equality, these conceptualisations may be implemented with younger students. Though, the empirical evidence for the successfulness of this, academically or otherwise, is lacking.

2.3 Dialogic Programmes in The Classroom

Dialogue in education is often closely associated with an archaic form of schooling, formulated by the Ancient Athenians and is often referred to today as the ‘Socratic Method’ of

classroom dialogue (Chesters, 2012). This form of dialogic inquiry is adopted in many of the dialogue-based practices that are utilised in classrooms across the world and forms the basic foundations upon which many theorists and educationalists build their programmes (Fair et al., 2015; Trickey & Topping, 2004). There is a variety of evidence to suggest that dialogue programmes can be efficacious in a variety of areas within education, particularly within European and North and South American contexts. Using a popular example, ‘Philosophy for Children’ (P4C) initially conceptualised and researched by Lipman (1976) and the Institute for the Advancement of Philosophy for Children (IAPC) using Deweyan educational philosophy, takes the Socratic format and seeks to engage participating classrooms in practices that stimulate, sustain and rejuvenate learning via dialogue (Cam, 2014; Gazzard, 1988; Lipman, 1988; Topping, Trickey, & Cleghorn, 2019).

The process of P4C relies on carefully facilitated systematic stages and, as shown by Gregory (2007), these stages provide a structured approach to dialogue creating an environment of collaborative, critical and logical reasoning (Lipman, 1976, 1988). In line with the earlier discussions of Alexander (2017), Daniels (2001) and Mercer’s (1995, 2008) work, this systematic structure allows students to process information by scaffolding theoretical concepts alongside removing the initial burden of formulating discussionary content. This procedure formulates what Lipman (1976) describes as the ‘community of inquiry’, closely associating this dialogue with a collective and social process of problem-solving. Similarly, Nelson (2007), using Vygotskian theory, describes this same process of collaborative inquiry as a ‘community of minds’. This highlights the interconnectedness of dialogue and thinking and, moreover, the Vygotskian socio-cultural elements of the structured forms of dialogue utilised in P4C (Giménez-Dasí, Quintanilla, & Daniel, 2013; Schleifer, Marie-France, Peyronnet, & Lecomte, 2003; Trickey & Topping, 2006).

The P4C programme has been shown to be educationally effective in a variety of ways, and is a pioneer in dialogic education (Trickey & Topping, 2004). Examples of this efficaciousness have come in relation to increases in academic attainment (Fair et al., 2015; Gorard et al., 2017; Trickey & Topping, 2004), ‘cognitive output’ (Topping & Trickey, 2007), inquiry and argumentation skills (Cam, 2014; Lipman, 1988; Topping & Trickey, 2014); critical and logical reasoning (Alexander, 2017; Gregory, 2007; Lipman, 1988) and socioemotional development (interactively and introspectively) (Cassidy et al., 2018; Fernández-Sánchez, Quintanilla, & Giménez-Dasí, 2015; Giménez-Dasí et al., 2013; Giménez-

Dasí, Quintanilla, Ojeda, & Lucas-Molina, 2017; Trickey & Topping, 2006). The P4C programme has also been used as the basis for many different age bands, from high/secondary students to pre-school children. However, due to the often-complex ideas that are being discussed, the intervention programme tends to be adopted within classrooms of middle-school aged students (seven to 13) and above. Although, as shown by the research undertaken by Giménez-Dasí and colleagues (Fernández-Sánchez et al., 2015; Giménez-Dasí et al., 2013; Giménez-Dasí et al., 2017; Pons et al., 2019) and Schleifer, Marie-France, Peyronnet, & Lecomte (2003), P4C can and has been successfully adapted for children under the age of five (further detail in the next section).

P4C is not the only successful dialogue-based intervention and/or pedagogy. There is evidence to suggest that other dialogue-based programmes (or simply just the adoption of some aspects of dialogue-driven pedagogy) also have a positive impact on students' subject specific attainment and academic output. These are almost always rooted firmly in the Vygotskian principles of socio-cultural learning. For example, Rojas-Drummond & Mercer (2003) reported an increase in mathematic problem solving and reading comprehension after comparing two classroom teachers' usage, and lack thereof, of Socratic questioning and exploring problem-solving themes. Scott (1998) reported enhanced scientific understanding in a classroom that adopted an exploratory approach to a Secondary-school Science curriculum. Reznitskaya et al., (2001) and Latawiec, Anderson, Ma, & Nguyen-Jahiel, (2016) report the positive impacts that oral discussions, in the form of what Reznitskaya and colleagues (Anderson et al., 2010; Kim et al., 2007) describe as 'Collaborative Reasoning', have upon students' written argumentation in analytical essays. The robust and methodologically high-quality evidence portrays the overall educational successes that dialogue can bring to classroom learning.

2.4 Socio-Emotional Learning and Dialogue

As stated above, dialogue-based education programmes have been used in an attempt to improve what is generally described as 'socio-emotional learning' (SEL). Although often operationalised in a variety of ways, SEL is generally agreed to relate to the overall development of a child's emotional knowledge and regulation from both an interpersonal and introspective sense, combining emotional comprehension and social competency (Fernández-Sánchez et al., 2015; Giménez-Dasí et al., 2017; Pons et al., 2019). With regards to this

development being linked with dialogue, as outlined by De Rosnay & Hughes (2006) and Pons, Harris, & de Rosnay (2004), there is a clear relationship between conversation and a child's emotional comprehension and ability to socially interact. Particularly prevalent during the early years of a child's schooling, Pons et al., (2019) denote this importance of children conversing for the sake of socio-emotional development. However, as found in a non-systematic review of the literature by Schleifer et al., (2003), more research is required to enhance the overall knowledge surrounding this developmental relationship.

Giménez-Dasí and colleagues (Fernández-Sánchez et al., 2015; Giménez-Dasí et al., 2013; Giménez-Dasí et al., 2017; Pons et al., 2019) have formulated a dialogue intervention targeting this specific relationship. 'Thinking Emotions' is an adapted version of P4C for early-years students and merges the Vygotskian perspective of socio-cultural learning with the structured collaborative inquiry that dialogue can bring (Giménez-Dasí et al., 2013). Although the 'Thinking Emotions' programme has reported mixed successes in previous studies (Fernández-Sánchez et al., 2015; Giménez-Dasí et al., 2013), Pons et al., (2019) reported positive results on the emotional knowledge of Canadian and French five-year-olds.

Giménez-Dasí and colleagues' four studies (Fernández-Sánchez et al., 2015; Giménez-Dasí et al., 2013; Giménez-Dasí et al., 2017; Pons et al., 2019) adopt the 'Thinking Emotions' programme within a robust and rigorous intervention methodology. The studies all utilise the 'Test of Emotion Comprehension' (TEC), a test with high psychometric properties and reliability (Pons & Harris, 2000). The TEC measures nine components of socio-emotional development in three qualitative, hierarchical levels (external, mental and reflective levels, this final level being particularly relevant to the development of a child's ability to empathise with another person) (Pons and Harris, 2000). The strength of methodological rigour undertaken in Pons et al., (2019) in particular, reaffirm the study's positive results and intervention programme. Furthermore, Pons et al.'s (2019) success alongside this rigour suggests that dialogue-based programmes with a similar design have the propensity to enhance components of a child's socio-emotional development and consequently, the potential to enhance their empathy.

Some researchers have effectively employed dialogue programmes to support the learning and growth of non-typically developing children. Cassidy et al., (2018) used an adapted form of P4C in order to support the socio-emotional development of students' with

social, emotional and behavioural needs in mainstream classrooms. Cassidy et al., (2018) denote that the use of P4C and the adoption of the ‘Community of Philosophical Inquiry’ (CoPI) (as they describe it) is an unintrusive programme that allows the enhanced development of students who require extra assistance whilst not hindering the learning environment of typically developing students. This decision was supported by the work of Lipman (1988) who discussed how P4C has the capacity to support children to socially develop, placing particular emphasis on the process of perspective-taking and social communication skills. Cassidy et al., (2018) implemented a robust methodological design with a strong mixed-methods approach utilising both measures of teacher reporting and numerical and empirical observations using scales with strong inter-rater reliability.

The team reported high levels of engagement and verbal contributions from their participants in these P4C classes. They also denoted a high level of quality in emotional communication between students as gleaned from the teacher reports. One could argue that the strength in design and the subsequent positive results of Cassidy et al.’s (2018) study suggest that the implementation of dialogue-based programmes, principally P4C, can be efficacious when seeking to support the cognitive and social aspects of emotional development in non-typically developing children. However, they did not adopt a Randomised Control Trial (RCT) intervention design so one cannot conclusively claim that the findings were entirely the result of the CoPI programme.

2.5 Defining Empathy

At the heart of human interaction and communication lies empathy (Bošnjaković & Radionov, 2018). Theorists of the mid twentieth century, particularly Mead, Freud and Piaget, defined empathy as the ability for one to take on another’s thoughts and emotions, with a clear and fundamental focus on the idea of ‘perspective taking’ (Freud & Strachey, 1959; Mead, Morris, Huebner, & Joas, 2015; Piaget, 2013). Mead discusses empathy as a tendency or an inclination to take on another’s perspective but, also cognate that perspective and begin to ‘empathise’ with that person as a result of that understanding (Mead et al., 2015). In a Freudian conception relating to one’s ego, this process requires a clear self-other differentiation to be made between the ‘empathiser’ and the ‘target’ (Coll et al., 2017; Freud & Strachey, 1959).

From a neurobiological perspective, empathy is associated with the release of various hormones but, most prevalently, ‘oxytocin’. As stated by Decety (2011):

“a number of studies clearly reported (oxytocin’s) implication in human social cognition and empathy. In particular, its application via nasal spray reduces responses to social stress. Oxytocin can increase mutual trust, and this effect is not due to a general increase in the readiness to bear risk. On the contrary, oxytocin specifically affects an individual’s willingness to accept social risks arising through interpersonal interaction.” (p. 37).

Therefore, a reduction in one’s stress and anxiety levels (measured via cortisol excretion) may be associated with an increased ability to release oxytocin and arouse empathy too (Coll et al., 2017; Decety, 2011; Influx, Masalha, Zagoory-Shaon, & Feldman, 2019). Furthermore, this neurobiological process is stimulated through interpersonal connection suggesting that humans must actively interact in order for this to take place. See Appendix 1 for how this can directly relate to dialogue.

Through this hormone stimulation and, therefore, empathic arousal, one then begins to empathise with another and, as a result, has the propensity (or what Mead describes as the ‘moral responsibility’) to alter one’s behaviour appropriately (Bošnjaković & Radionov, 2018; Mead et al., 2015). Consequently, there is much crossover between the concept of empathy with an individual’s moral responsibility and subsequent behaviours (Decety, 2011; Hoffman, 2000). Furthermore, the development of empathy and the ability for one to think empathically is often associated with moral development (Hoffman, 2014; Mead et al., 2015; Piaget, 2013).

However, as discussed by Batson (2009), Coll et al., (2017) and Maxwell & DesRoches, (2010), the idea that empathy is, in and of itself, the feeling of concern for another, rather than the simple recognition of another’s emotions is, from a psychological and neuroscientific perspective, false. It is frequently misunderstood that this concern, often termed as sympathy (Clark, 2010), is empathy. However, the key difference between the two constructions is rooted in the objectivity afforded to the recognition of another’s emotions rather than the concern felt and the purpose of the emotional stimulation, as highlighted by Maxwell & DesRoches (2010) and Clark (2010). The moral aspects of empathy are built upon one’s ability to alter their

behaviours subsequently, rather than the process of recognition or perspective-taking (Batson, 2009).

Hoffman (2000) posits that empathy is stimulated by a target's distress and/or need for help. Consequently, the empathiser's response to satisfy that need for help is part of the empathic process. Crucially however, Hoffman (2000, 2014) does not state that this 'pro-social' behaviour is empathy but, that the behaviour is a consequence of empathy. Therefore, as a child cognitively develops, empathy is aroused by a "network of cues from another's behavior, emotional expression, immediate situation, and life condition" (Hoffman, 2014, p. 10) and it is the empathic arousal that then dictates the behaviour. Although, this is only in situations that subsequent behaviour is either required, or possible. 'Empty Empathy', as Hoffman (2014) denotes, has the propensity to cause many social issues and a falsity and insincerity to what Hoffman (2000) describes as an innate cognitive development.

As research into empathy has developed and diversified, there has been a paradigmatic shift towards a more binary construction of what we understand to be empathy. Consequently, many contemporary researchers now discern between the idea of cognitive and affective empathy. Cognitive empathy can be thought of as the recognition of another's thoughts, beliefs or emotions, whereas, affective empathy is defined by the emotional stimulation of an individual by another's emotions (Lee, Lee, & Kim, 2018). Therefore, the earlier definitions of empathy align more closely with the cognitive denomination of empathy, though, the conceptions of subsequent behaviour alteration can be associated more closely, but not directly, with affective empathy (Bošnjaković & Radionov, 2018).

As shown by the data presented in a meta-analysis conducted by Hall & Schwartz (2019), a great number of definitions have been provided for empathy and the vast majority of research into empathy defines it as a multidimensional phenomenon. The study found that the binary differentiation of cognitive and affective empathy was the most common delineation of empathy. However, it is also reported that, from the total of 489 papers, empathy was used to describe multiple processes and key features, from distinguishing between emotions to altering one's behaviour as a result of another's emotions. Hall & Schwartz (2019) state:

"Defining empathy as a set of complex processes—some of which escape conscious control, others of which demand it—raises the question of how to accurately and consistently

characterize empathy when, for some authors, empathy is a superordinate construct requiring the activation and co-ordination of multiple processes, while for others ‘empathy’ is defined and assessed not as the culmination of an interpersonal process but in terms of individual ability.” (p. 233).

This lack of clarity when defining empathy, particularly with regard to the differences between it being an introspective and/or an interpersonal process, has led to the formulation of a complex and equivocated field of research (Batson, 2009; Bošnjaković & Radionov, 2018; Coll et al., 2017; Maxwell & DesRoches, 2010). Therefore, as concluded by Hall & Schwartz (2019) and echoed by Batson (2009) and Decety (2011), the incoherence of the field disallows the drawing of significant conclusions from previous studies that do not conceptualise and operationalise empathy clearly. Furthermore, it should be understood as a basic requirement for any subsequent study researching empathy that this conceptualisation and operationalisation is undertaken with clarity and rigour.

2.6 Measuring Empathy

As one might suspect, the dissonance within the conceptualisation and operationalisation of empathy causes many issues when seeking to measure this phenomenon (Bošnjaković & Radionov, 2018; Neumann, Chan, Boyle, Wang, & Westbury, 2014). Formulated by Robert Hogan (1969), the Hogan Empathy Scale (HES) was one of the first tests that sort to measure empathy. The HES utilised 64 self-reported empathy measures and was found to have a high level of validity and reliability (Bošnjaković & Radionov, 2018; Hogan, 1969). Furthermore, the test was one of the first to truly recognise the complexity in empathy’s fundamentals and, as such, was created with these multidimensional, psychological and moral conceptualisations in mind (Bošnjaković & Radionov, 2018). The HES was also one of the first self-reported empathy tests which now form the backbone of empathy testing: Hall & Schwartz (2019) reported that 80 percent of the studies found in their meta-analysis used self-reported empathy measures. However, it was also presented in the same study that this self-reporting was often juxtaposed with another type of testing: either behavioural observation methods or a neuroscientific approach (Hall & Schwartz, 2019). These methods entail an evaluation in an experimental/quasi-experimental environment and brain-imaging techniques respectively (Neumann et al., 2014).

The two most used tests in the Hall & Schwartz meta-analysis (2019) were, firstly, Davis' (1983) Interpersonal Reactivity Index (IRI), popular due to its extensive, yet non-time consuming, four-scale self-reported approach measuring perspective taking, empathic concern, fantasy and personal distress. Once again, this multidimensional approach outlines the importance given to satisfying as many conceptual avenues of empathy as possible. The second was Baron-Cohen & Wheelwright's (2004) Empathy Quotient (EQ). This test is primarily administered by psychologists seeking to diagnose an individual with some denomination of Autism Spectrum Disorder, particularly Asperger's Syndrome or High-Functioning Autism (Baron-Cohen & Wheelwright, 2004). Both these tests report high test-retest reliability: $r = 0.71$ and $r = 0.97$, respectively.

Bošnjaković & Radionov (2018) and Neumann et al., (2014) both list and describe a great number of these empathy tests, with the latter providing detailed psychometric reviews for each. However, not all of the tests reported in both are specifically designed for the age band relevant to this study or school-aged children more generally. It is argued by several researchers that the tests for empathy that are used more frequently (i.e. those indicated above) do not cater for the requirements of children and adolescents (Cheang, Gillions, & Sparkes, 2019; Dadds et al., 2008; Gunawan, Wibowo, Purwanto, & Sunawan, 2019; Reid et al., 2013; Vossen, Piotrowski, & Valkenburg, 2015). Bryant's (1982) work in formulating the 'Index of Empathy', a self-reporting test designed for both children and adolescents, formed a foundation for others. For example, Dadds et al., (2008) 'Griffith Empathy Measure' (GEM), differing from Bryant's Index of Empathy as it relies on adult (either parent or teacher) responses, has a high level of test-retest reliability: from the initial 2612 sample, 127 parents were re-tested finding a six-month stability co-efficient of .69. Further, Dadds et al., (2008) reported Cronbach alpha coefficients of .62 for cognitive empathy and .77 for affective empathy. This suggests that the GEM is a reliable and robust measure of empathy as a multidimensional phenomenon, specifically designed for children.

Another example not discussed in Bošnjaković & Radionov (2018) or Neumann et al., (2014) is the Adolescent Measure of Empathy and Sympathy (AMES), designed by Vossen, Piotrowski, & Valkenburg (2015). Unlike the GEM, the AMES is a self-reported empathy measure but, similarly to the GEM, it is designed for children aged between 10 and 15. The advantage of the AMES is that it adopts a multidimensional approach, highlighted by its

differentiation between cognitive and affective empathy, and it delineates between empathy and sympathy, emphasising its conceptual clarity. Moreover, as reported by Vossen et al., (2015) the psychometric properties of the AMES were of a high standard. Both the GEM and the AMES allow researchers to reliably measure empathy in children and adolescents with minimal difficulty. Used together, one could glean both the perspectives of the individual child and an adult observer providing one with well-supported and rich data.

Behavioural observations and stimuli-response measures are often employed in empathy studies with children to take away the pressure of explicit testing. Reid et al., (2013) present their test, 'The Kids' Empathic Development Scale' (KEDS) which is based around children's responses to social situations depicted in picture cards and researcher descriptions. Similarly, Gorard and colleagues (Fair et al., 2015; Gorard & Smith, 2010; Siddiqui et al., 2019) advocate for the use of vignette response measures in empathy too and, more broadly, in the field of socio-emotional and moral development. The use of these types of measures attempt to stimulate the affective inferencing of a participant, rather than playing solely on one's ability to recognise an emotion or response (Reid et al., 2013). This becomes particularly important when observing empathy in a multidimensional fashion, splitting between cognitive and affective, as this allows one to measure participants' affective disposition with a greater level of accuracy (Bošnjaković & Radionov, 2018). Furthermore, they contextualise situations in a more detailed fashion and move beyond the simplistic denominations that a self-report measure may provide (Gorard & Smith, 2010).

It is clear from the studies and measures presented above, alongside the measures outlined in Bošnjaković & Radionov (2018) and Neumann et al., (2014), that there are a great variety of empathy tests, with a great variety of purposes. The conceptual plurality and variety in tests can prove a difficult combination for researchers in empathy (Vossen et al., 2015). This reiterates the idea that conceptual clarity and, subsequently, appropriate justification for the purpose and use of certain tests is of paramount importance when researching empathy (Hall & Schwartz, 2019).

2.7 Empathy, Morality, Altruism & Pro-social Behaviour

As previously alluded to, empathy and empathic development have often been conceptualised in relation to moral development and then other subsequent behavioural constructs such as altruism and pro-social behaviour (Batson, 2009; Decety, 2011; Maibom, 2014; Sober, 1991). This conception begins to move empathy from a solely psychological phenomena, with a requirement for consistent empirical measurement to that which is philosophical. The moral and altruistic elements of empathy, as discussed by Batson (1991) and Hoffman (2000), occur when observing the subsequent arousal of behaviour. An individual's want to help a person in need is not guaranteed to be enacted however, it is agreed by many researchers and theorists that the empathic arousal increases the likelihood that one will act upon this emotional stimulation (Batson, 1991; Decety, 2011; Hoffman, 2000; Sober, 1991).

Schroeder, Graziano, Batson, Lishner, and Stocks (2014) postulate their 'Empathy-Altruism Hypothesis' (EAH) which simply states that: "empathic concern produces altruistic motivation" (p. 2). The EAH, although very simple in premise, observes empathic concern (a conglomeration of initial empathic recognition, with sympathy and compassion) as an 'other-orientated' phenomenon. The theory utilises the conceptions of what empathy has been and often is conceptualised as, in accordance with the work of Batson (2009) and posits the theory that empathic arousal has the capacity to motivate altruistic behaviours. The theory assumes that both being able to perceive another as 'in need' and intrinsically valuing another's welfare are fundamental antecedents to empathic concern (Schroeder et al., 2014). This conception follows a similarly conceptual path as that of Nussbaum (2001).

Nussbaum (2001) uses compassion (constructed in a concurrent fashion to the pluralistic formulations of Batson, 2009, and those in Schroeder et al., 2014) to characterise empathy as a metaphysical phenomenon as well as a cognitive process. Empathy, in this sense, then acts as an essential tool for the creation of good citizenship (Nussbaum, 2001). According to Nussbaum (2001), citizenship, like altruism, relies upon a moral predisposition that values others' welfare and then motivates one to assist that other on empathic arousal. However, theorists, such as Boler (1999), argue that this assumption that compassion and altruism will be enacted on cue if one is empathically stimulated is too passive, and creates a society that will constantly require an 'other' in need. Boler (1999) describes this as 'passive empathy'. Hoffman (2014), similarly, denotes the issues with what he describes as 'empty empathy'.

It is prevalent to note that Nussbaum (2001) and Schroeder et al., (2014) rely on the neuroscientific premise that empathic arousal is a mammalian evolutionary development, conceptions which are evidenced by Decety (2011). Firstly, rooting their theories in this scientific foundation suggests a greater level of credibility and secondly, it also portrays a universality to the theories by suggesting that there is an innate propensity in all humans for, not only the triggering of empathic arousal, but also the subsequent behaviour. Hoffman (2000) similarly discussed the intrinsic nature of empathic arousal as one's 'hardware' and described this process as compelling one to altruistic action. However, Hoffman (2000) made the imperative distinction by suggesting that humans are not "saintly empathic-distress-leads-to-helping machines" (p. 33). Maxwell & DesRoches (2010) in further opposition, explain that one must be careful "to keep social inferencing and the psychological processes involved in the awareness that someone is suffering adversity well distinct from the responding emotionally to that suffering by caring" (p. 42). This suggests that there remains disagreement within the field as to the extent to which morality and an individual's capacity to care play in the wider process of empathy, empathic development, and empathic arousal.

Consequently, to characterise empathy as the main proponent of moral development, altruistic tendency and pro-social behaviour in children is false. However, one must understand the integral part empathy plays in stimulating these behaviours and thus, conceptualise empathy in a truly 'multidimensional way', that acknowledges all aspects of the psychological, neuropsychological, and philosophical domains. This then further alters how one seeks to measure empathy and the purpose for this measurement. As outlined by Schroeder et al., (2014); Boler (1999); Hoffman (2000) and Nussbaum (2001), the social power of empathy is in what is produced as a result of it, not the arousal of empathy itself. Therefore, reporting the resultant behaviours that are stimulated by empathy becomes a vital part when researching the overall phenomenon. However, it is of paramount importance to note that a researcher is only observing the subsequent behaviour of a participant; without empirical data, neuro-imaging data or reflective response data (i.e. specifically answering why one enacted a certain behaviour) to enhance the conclusions drawn, one cannot state with full certainty that a behaviour is empathically motivated or is a result of empathy stimulation (Coll et al., 2017; Decety, 2011; Lee et al., 2018).

2.8 Empathy and Education

Empathy plays a vital role within education. Although the chronology and ontogenetic development of empathy is not widely agreed upon, it is thought that empathy is a process that can be taught, learned, and enhanced. As discussed by Feshbach & Feshbach (2009), there have been two main approaches to the education of empathy in students: firstly, the concept that empathy will enhance intellectual growth, learning and academic output and, secondly, the idea that empathy is taught because it is an important cognitive and affective capacity for all social life. There is evidence to suggest that there is a correlation between empathic, prosocial behaviours with academic achievement, as showcased in the work of Caprara, Barbaranelli, Pastorelli, Bandura, and Zimbardo (2000) and Wentzel (1993). Particularly, there is extensive evidence to suggest that empathy acts as a strong predictor for academic attainment from early childhood, later into childhood and adolescence (Bošnjaković & Radionov, 2018; Lee et al., 2018; Maxwell & DesRoches, 2010). These studies portray a clear linkage between empathy and academic attainment in various ways and justify both approaches equally.

Empathy development, although constantly growing and becoming more nuanced through childhood, typically reaches a point of consciousness when a child has the cognitive, linguistic and socio-emotional capacity to recognise, process and articulate their own and another's emotions or perspectives (De Rosnay & Hughes, 2006; Feshbach & Feshbach, 2009; Pons et al., 2004). Consequently, as described by Feshbach & Feshbach (2009), empathy development and support intervention programmes are likely to be at their most efficacious during this time in a child's life – at this time of crucial development. Although individual differences in children will effect when they arrive at this stage, in line with well discussed cognitive and socio-emotional development theories, seven years of age and older is often (but not always) when these programmes are at their most effective (Daniels, 2010; Feshbach & Feshbach, 2009; Kohlberg, 2008; Piaget, 2013; Pons et al., 2004; Silke, Brady, Boylan, & Dolan, 2018).

Feshbach & Feshbach (2009) outline some of the pedagogical techniques undertaken to initially stimulate empathy within classrooms. They state that, more often than not, the subject themes of 'empathy-stimulating experiences' for example, learning about poverty or the Holocaust, are central to the pedagogy. This conforms directly with the idea put forward by Decety (2011) and Hoffman (2000) that empathy cannot be aroused without the presence of

emotive subject matter, either tangibly or theoretically. Techniques and approaches adopting perspective-taking, either within the setting of a debate or a dramatic endeavour, are also described by Feshbach & Feshbach (2009). They evidence studies that have used these practices to enhance empathy in the past (e.g. Barak, Engle, Katzir, & Fisher, 1987; Feshbach, Feshbach, Fauvre, & Ballard-Campbell, 1984). This is echoed in Maxwell & DesRoches (2010) and is described in terms of being a pedagogical technique that embodies the empathic process. Lee et al., (2018) implemented an empathy intervention with fifth-grade students in South Korea utilising similar conceptions of verbally communicative perspective-taking as the basis for empathic arousal. This communicative empathy-driven programme was found to be effective in improving both empathy and academic engagement in its participants suggesting the effectiveness more generally of this communicative type of intervention programme (Lee et al., 2018).

Although empathy-based programmes have been found to be effective in both enhancing empathy and academic outcomes, this does not mean that this is always the case. Maxwell & DesRoches (2010) describe and analyse three key areas where classroom-based empathy programmes often fall down: the first is misoperationalising empathy. As alluded to earlier, empathy's plurality and complexity often means that researchers may define empathy very differently – particularly by equating empathy directly as a moral disposition and as concern/sympathy (Batson, 2009; Hoffman, 2014). Consequently, this can cause issues within studies pertaining to the measurement of outcomes and the rationale of the intervention programme (for example, seeking to enhance empathy when in reality enhancing sympathetic responses). Secondly, Maxwell & DesRoches (2010) denote that an overemphasis and adoption of the imagination and vicariousness during interventions can lead to the blocking of much empathic stimulation by placing an obstacle between an empathiser and their target. Lastly, it is stated that empathy programmes can misinterpret the concept that cognitive and affective empathy are two distinct psychological and developmental social skills by focusing solely on one or the other (Maxwell & DesRoches, 2010). These three areas of common error allow one to identify common issues within programmes whilst also developing empathy enhancing interventions for effective use in the future.

2.9 Dialogue & Empathy in Education

This section focuses on dialogue and empathy in education. For information pertaining to dialogue and empathy outside of educational settings, see Appendix 1. As shown in the work of Cassidy et al., (2018); Giménez-Dasí et al., (2013) and Pons et al., (2019), there is statistical data suggesting that dialogue practices in education can positively impact socio-emotional development more generally and, as it contributes to this overall development, empathy. However, this data uses empathy as a minor or implicit component within their studies. Although emphasis maybe placed upon perspective taking, affective responses and pro-social behaviour within these studies, empathy is not being operationalised formally. Lipman (1976, 1988, 2003) theoretically describes in detail how dialogue, specifically P4C and philosophical inquiry, can support and improve the development of children's interpersonal skills, ability to take on another's opinion and perspective, and how this ability leads to the child becoming a more morally responsible person in the future. From psychological, philosophical and socio-political perspectives alike, dialogue and dialogic pedagogies in education have been theoretically argued to have the propensity to improve empathy (Freire, 2017; Lipman, 2003; Mercer, 2008). Yet, the explicit discussion and empirical research to provide evidence in the field of education research for this propensity is absent.

In juxtaposed similarity, Maxwell & DesRoches (2010) describe and outline studies that seek to develop empathy and allude to the idea that dialogue, in the form of simple conversation, enhances this process. However, this pedagogical feature is not explicitly highlighted. In studies that seek to enhance empathy in the classroom, for example Caprara et al., (2000); Feshbach et al., (1984) and Lee et al., (2018), dialogue is once again a key component in the construction of the intervention programmes but, absent from the conceptual explanation and analysis of these programmes. As described by Feshbach & Feshbach (2009); Hoffman (2000) and Nussbaum (2001), dialogic communication in particular plays a vital role in affective communication and, in the absence of first-hand experience of an empathy-stimulating situation, the arousal of empathy further relies upon effective verbal communication. However, once again, this linkage is not made explicitly and not reinforced with statistical or empirical data.

Although quantitative data linking dialogue and empathy is lacking, theoretical analysis and exploration has examined this relationship with some qualitative data to suggest the existence of a positive relationship: Schertz (2007) and Schleifer et al., (2003) argue that philosophical inquiry and inter-peer dialogue can arouse and enhance empathy. Similarly,

Zembylas (2013, 2018) argues that via critical, dialogic pedagogy, students can begin to empathise with one another on a more active and deeper emotional level. Sharp (2007) argues that philosophical inquiry and dialogic pedagogy has the ability to stimulate what she describes as ‘caring thinking’ which relies on the initial stimulation of empathy. With perspective taking at the heart of P4C and philosophical inquiry especially, one could argue that these dialogic interventions are steeped in empathic arousal. Schertz (2007) states that P4C allows children the “practice in imagining/perceiving another’s perspective” (p. 191) and therefore, enables children to fundamentally practice empathising with others. However, as previously stated, this is theoretical and qualitative data only and consequently, does not provide conclusive evidence as to the specific nature of dialogue and empathy’s relationship in education.

As shown in the findings of Pons, Harris, & de Rosnay’s (2004) study, by the age of seven, the majority of children can identify and understand how external factors can affect another’s emotions. By this age, children could also understand that there may be individual differences in emotions in the same situations. By understanding more complex and nuanced individual emotional responses, these children showcase a higher propensity to empathically understand others. Similarly, Mercer & Howe (2012) denote that when children reach Key-stage 2 and beyond (aged seven) the majority of children will be able to engage in structured and purposeful conversation. Furthermore, studies that have used either dialogue-based programmes and empathy enhancement programmes in the past have focused on the age-band between seven and 13 (e.g. Feshbach et al., 1984; Lee et al., 2018; Topping & Trickey, 2007; Trickey & Topping, 2006). This is in keeping with popular socio-emotional and cognitive development theories outlined by Piaget and Vygotsky, suggesting that seven years old is when children begin to comprehend for complex and abstract phenomena (Daniels, 2010; Miller, 2010). These studies and theories alike assisted in deciding that this review would use data pertaining to Key-stage Two and middle-school aged children.

2.10 The Present Study

As has been shown throughout this review of literature pertaining to both dialogue and empathy, within the field of education research, there is a clear theoretical and conceptual basis to suggest that dialogue and dialogic pedagogy can arouse and improve empathy and empathically-driven responses. However, the lack of explicit conceptual clarity in the

construction of this relationship, alongside the severe lack of statistical and empirical data, implies that this is not proven. Furthermore, the lack of clarity in operationalisation of empathy adds additional complexity and ambiguity to the mapping of this relationship, thus hindering the development of practices and programmes that may enhance empathy. Consequently, a formal review of dialogue and empathy within the field of education research is required, in conjunction with the exploration into whether there is evidence to suggest a positive association between the two. Subsequently, one may then begin to re-conceptualise a new perspective pertaining to dialogue and empathy within education whereby the former can enhance the latter. This study seeks to add to the literature concerning this new perspective. Therefore, the present study seeks to explore the existing literature in a systematic fashion but, frames this within dialogue and empathy's new perspective by examining the research questions found in section 1.3.

Chapter 3: Methodology

3.1 Research Design

The first stage when determining the methodology of this review was to settle upon what type of review was required in order to best map the uncharted territory of dialogue and empathy in education. It was decided that a configurative narrative review would achieve this goal best because of the lack of studies that one could aggregate results directly from, as would be done in other forms of systematic reviews (e.g. a meta-analysis). This decision was made in light of studies suggesting a conceptual linkage between dialogue and empathy in education (for example, Schertz, 2007 and Sharp, 2007) and studies suggesting a lack of empirical data in this area to assess these claims (for instance, Giménez-Dasí et al., 2017; Siddiqui & Ventista, 2018). Iteration took place throughout the process of preliminary searching and criteria formulation in order to establish the conceptual links between dialogue and empathy, guided by previous literature. Decisions were made in concurrence with methodological definitions and design information provided by Gough, Thomas, & Oliver (2012). Though, each step was followed in accordance with Boland, Cherry, & Dickson (2017) (a summary of which can be found in Appendix 2).

The review's searches took place on three databases relevant to the area of study: ProQuest's education collection (ERIC); The British Education Index (BEI) and PsycINFO. All three databases were chosen because of their disciplinary focus (i.e. the field of educational research). All scoping searches took place in these databases. More databases would have been used but, due to time and human resource restraints, it was agreed that these three would be appropriate.

3.2 Initial Search Strategy Formulation

Finalising the procedures undertaken in this review required many trial attempts. This was mainly due to the inexperience of the researcher but, also in part because of the lack of systematic reviews in this area of research upon which one could build or follow. Reviews pertaining to literature surrounding specific dialogue-based interventions (Trickey & Topping, 2004), empathy enhancement programmes (Cheang et al., 2019) and socio-emotional and

empathic development (Silke et al., 2018) were identified but, none were found relating to a combination of the target areas. Consequently, in accordance with Dunder & Fleeman (2017), initial scoping searches were undertaken in an attempt to yield the most efficient searching procedures and replicable methodology. Furthermore, supplementary hand searches were identified as a mandatory addition to this procedure. Although the systematic review is a methodologically thorough process by which to obtain relevant material, because of the lack of research in this area alongside the configurative roots of this study, decisions driven by the researcher's interpretations of the field were required to expand and enhance the study. In this vein, hand searches in specific journals and institutional archives were undertaken for this purpose (see Appendix 6).

3.3 Search Terms

During these initial scoping searches certain keywords were identified to allow greater opportunity for the discovery of further relevant papers. With both empathy and dialogue, many variations of terms in the literature were found (see sections 2.1, 2.2, 2.3, 2.5 and 2.7). After initial searches to identify the correct combination of terms, it was determined that only terms relating specifically to dialogue and empathy would be used. This is because other terms relating to: the study design, age of participants, specific pedagogical practices, and the general inclusion of 'socio-emotional development' terms restricted searches too greatly (see Appendix 4). The Boolean operators OR, AND and NOT were included so as to increase and specify the scope of the review.

The exact terms, search strings and operators for all searches can be found in Appendix 3. Regarding the dialogue strings, by including the terms 'classroom talk', 'dialogic* enquiry', 'dialogism' and 'critical pedagogy' the most vocal theorists' concepts of dialogue within education were enabled and brought to the fore (Neil Mercer and Robin Alexander's research in the socio-cultural, Vygotskian framework of dialogic teaching; John Dewey's concepts of enquiry based thought, and the subsequent ideas surrounding Philosophy for Children from Matthew Lipman; Bakhtinian philosophy and, amongst other theorists', Freirean critical dialogue, respectively). The inclusion of these theoretically specific terms was not to exclude studies that did not utilise these constructs; it was to ensure that studies that *did* utilise these constructs were more likely to come up during the searches.

Similarly to dialogue, previous work drove the selection of the strings relating to empathy. In particular: Mead and his conceptions of taking on another's perspective; Decety and the links between the neurobiology, psychology, and pro-social behaviours of empathy; Hoffman's conceptualisations of empathic arousal and Nussbaum's ideals of empathy and compassion (amongst others). As previously discussed, empathy as a phenomena is often used in many different ways and studies vary in their definitions of empathy as a binary or heterogenous phenomena (Batson, 2009; Hall & Schwartz, 2019). Terms, such as 'sympathy', are conceptually different to empathy however, it was found that their association meant that there was cross-over in many studies that used dialogue-based practices in order to invoke more thoughtful empathic thinking. Similarly, 'pro-social behaviour' was often used when discussing empathy, particularly in the context of anti-bullying and combatting 'negative' classroom behaviours, via dialogue-based practices. Consequently, it was determined that including 'pro-social behaviour' would allow the induction of these types of studies.

During the searches on the three databases there were differences in the number and specificity of search terms that were permitted when inputting these terms. The disparity will can be seen in Appendix 3.

3.4 Eligibility – Inclusion/Exclusion Criteria

Once the type of review and the key search terms had been definitively established, the creation of an inclusion/exclusion criteria was required. Relevant literature was used to inform these parameters. As there is yet to be a formally identified association between dialogue and empathy in the field of education research, it was important to ensure that studies with a wide variety of methodologies were included. This meant that any type of relevant intervention, qualitative (including ethnographies, observations, and interviews) or quantitative (correlational) study was permitted. Subsequent to the initial searches, it was made apparent that many studies concerned the field and relationship between dialogue and empathy but had no tangible evidence for a relationship. As such, it was decided that philosophical or theoretical essays would be excluded from the post search results in line with the current study's requirement for empirical data.

Due to time and human resource restraints of the project, a specific age band of, initially, seven to 11 was chosen and the years of publication were set at 2000 to 2020. In light of scoping searches, this band was increased to age 13 in order to include all middle-school students, particularly in the US context, alongside what would have just been Key-stage Two in the UK. This decision was made in accordance with studies and theories discussed in sections 2.3 and 2.9. Furthermore, all studies that were not published in a scholarly journal were excluded in order to control, initially, for academic rigour, or lack thereof.

The setting of each study was also important: initially it was thought that all studies would have to take place in a formal education settings, i.e. a classroom. This was to differentiate between the domains of social work and therapy, and education as it is well established within social work and therapy that communication will enhance one's ability to empathise with others and think more empathically (Clark, 2010; Gunawan et al., 2019) (see Appendix 1). However, a number of preliminary scoping searches showed that changes in pedagogy towards dialogic practices were often mirrored in changes in educational environment. For example, Ampuero, Miranda, Delgado, Goyen, & Weaver (2015) moving their participants outside to engage with their local, natural environment. Consequently, as long as the study took place in an educational environment or was run by an educational body (i.e. some form of school or educational institution), the study would be included.

3.5 Systematic Searches

3.5.1 First and Second Searches Subsequent to these decisions being finalised, a first 'official' search was undertaken on the three aforementioned databases. Subsequent to this search, the agreed upon inclusion/exclusion criteria was used during the screening process. However, the search strings varied. For ERIC and BEI, the search string used all aforementioned terms for dialogue and empathy specifying that they must appear in the abstract. For PyscINFO though, too many results were found having used the same search terms minus the 'unsupported characters' (i.e. speech/quotation marks and brackets). Instead, it was decided that the key terms were to simply be *dialog** and *empath** and they were to appear in the abstract. This increased the search scope. However, it is acknowledged that it was not ideal. Details can be found in Appendix 3. This search was documented using Microsoft Excel and by hand. This search was used as an exploratory search to associate the

researcher in methods and procedures pertaining to systematic reviews. It was agreed after this first search and subsequent screening processes that a more efficient method was required due to time constraints and a need for increased rigour during the screening process.

The screening process was consequently changed. A software named ‘Rayyan’ – an application designed to enhance the efficiency and quality of systematic reviews (Ouzzani, Hammady, Fedorowicz, & Elmagarmid, 2016) – was adopted in order to satisfy this required increase in productivity and precision. The introduction of ‘Rayyan’ increased the efficiency of the screening procedure by approximately three times and allowed an ease of access to all information pertaining to each study that had previously been inaccessible. In light of this change, a second ‘official’ search commenced. The key terms and the screening criteria were the same as the above search. It was decided that before screening began, studies that were outside of the years of publication and that were not from scholarly journals were excluded by fixing the parameters on each database in turn. It was decided that a final search was to take place after these previous two in the name of methodological rigour.

3.5.2 Third Search The final search followed the same protocol as the above search with some minor alterations to the search terms: for the ERIC database, all search terms pertaining to dialogue and empathy were used and specified inclusion in the abstract. Four-hundred and twenty-six papers were found in ERIC. Whilst using the BEI database, all search terms relating to dialogue and empathy were again used though, the terms for both phenomena were not specified as appearing in the abstract of the studies and were delineated as appearing in ‘any field’. This was done in order to open up the search and create a larger overall pool of studies from which to choose. One-hundred and twenty-one papers were found in BEI. Lastly, for PsycINFO, the same terms for dialogue and empathy (dialog* and empath*) were used as in the previous searches but, specified as appearing in the abstract and any field, respectively. In addition, the terms ‘NOT nursing OR nurse OR medical OR medicine’ were used because this would limit the number of papers from the medical education sphere appearing. One-hundred and eighty-two papers were found in PsycINFO. A total of 596 papers (after de-duplication) were then taken into the screening process where the agreed upon inclusion/exclusion criteria was used. An example of how the final search was documented can be found in Appendix 5.

3.5.3 Limitations It is acknowledged by the researcher that having multiple searches, using the same databases and search terms, may have influenced the researcher's judgement regarding certain papers and, therefore, may be a significant limitation in this review. Although undertaken for the purposes of efficiency and rigorous research, this influence may have led to screening and reporter bias. As such, a secondary researcher should have been asked to verify these searches and subsequent screening procedures in order to control for this. Furthermore, it is also acknowledged that the overall number of papers was not very large and that this may affect the overall quality of this review. Though, the small dataset does make this study unique.

3.6 Screening

After the screening process for the final search had taken place using Rayyan, a total of 12 papers were deemed acceptable and were to be included in the extraction phase. This was a success rate of two percent. A possible 20 papers were categorised as 'maybes' (mainly because of the lack of given detail in their abstracts). However, on further inspection, none could be included. Amongst many reasons for omission, a large number of papers were excluded for researching with the incorrect participant age band relating mainly to the Higher Education (HE) domain. As previously discussed, relevant philosophical and theoretical essays would be excluded from this study's main synthesis but helped inform the review as a whole (in the Literature Review and the Discussion chapters). 17 papers matched this description.

Before extraction took place, full papers were procured of the 12 included papers and an initial read through was done (as suggested by Petticrew & Roberts, 2006). The procurement rate was 100 percent. During these preliminary readings it was discovered that there were issues with five of the papers' methodologies or, in the way that key terms had been operationalised. Details relating to the ineligibility of these five papers can be found in Appendix 6. This then meant that the final search yielded a success rate of one-point two percent.

3.7 Hand Searches

In addition to the electronic searches, a number of systematic hand searches took place after the final search in order to be as exhaustive as possible when gathering the data required for this study. These hand searches took place in journals that came up multiple times in either

the scoping or systematic searches. Hand searches also took place in archives that were thought to be relevant to the topics at hand. A full list of the journals and archives used for these hand searches can be found in Appendix 7. Further, the process of backward snowballing was also employed, whereby the reference lists of retrieved articles were screened for further literature. From these hand searches, nine papers were identified as possibly acceptable with a procurement rate of 100 percent. However, on further inspection, only two met the inclusion criteria. This reduction from nine to two is detailed in Appendix 6. The two deemed acceptable met all the inclusion criteria and then went into the pool of seven other papers from the systematic searches totalling nine papers.

3.8 Initial Extraction

3.8.1 Included Studies Table 1 details the nine retrieved articles eligible for the extraction process and content analysis.

Table 1

Authors and Titles of Included Studies

Author (s) and Year of Publication	Study Title
Ampuero, Miranda, Delgado, Goyen, & Weaver (2015)	“Empathy and critical thinking: primary students solving local environmental problems through outdoor learning.”
Endacott & Pelekanos (2015)	“Slaves, Women, and War! Engaging Middle School Students in Historical Empathy for Enduring Understanding.”
Glina (2015)*	“Exploring Prosocial Behavior through Structured Philosophical Dialogue: A Quantitative Evaluation.”
Iaosanurak, Chanchalor, & Murphy (2016)	“Social and emotional learning around technology in a cross-cultural, elementary classroom.”
Mary (2014)	“Fostering positive peer relations in the primary classroom through circle time and co-operative games.”

Parker (2016)	“Pedagogical Tools for Peacebuilding Education: Engaging and Empathizing with Diverse Perspectives in Multicultural Elementary Classrooms.”
Sassen (2012)*	“Drums and Poems: An Intervention Promoting Empathic Connection and Literacy in Children.”
Siddiqui, Gorard, & See, (2019)	“Can programmes like Philosophy for Children help schools to look beyond academic attainment?”
Stinson (2015)	“Speaking up about oracy: the contribution of drama pedagogy to enhanced oral communication.”

Note: *acquired via hand search

All nine articles were collated into study specific extraction templates, an example of which may be found in Appendix 8, and their data presented in the next chapter. As dictated by the research questions, the content analysis from the qualitative and quantitative studies’ data was done separately.

3.8.2 Statistical Analysis It was decided prior to extraction that statistical analysis of the quantitative data (particularly a synthesis of effect sizes) was to be undertaken due to the field’s aforementioned requirement for aggregative, quantitative data. This was to juxtapose the interpretative elements of the synthesis with the more objective, numerical aspect of the data collated to create a more well-rounded conceptual map of dialogue and empathy in education. Unfortunately, this was not able to be done due to several factors: firstly, the lack of overall numerical and statistical data, expressly effect size data; secondly, the employment in a variety of measures and, lastly, due to large disparity in the size of the data sets. These factors will be explored in the Synthesis and Discussion chapters.

Chapter 4: Synthesis

This chapter details the data gathered from the nine papers found via the systematic electronic and hand searches described in the previous chapter. A brief overview of each study can be found in Table 2.

Table 2

Details of the Nine Included Studies

<i>Author(s) and Year of Publication</i>	<i>Location, Sample Size & Participant Ages</i>	<i>Study Design</i>		<i>Research Objective</i>
		<i>Qualitative</i>	<i>Quantitative</i>	
Ampuero, Miranda, Delgado, Goyen, & Weaver (2015)	Los Andes, Chile N = 90 (60 students, 30 teachers) Five to 13 years-old	Intervention: Community Based Research – Ethnography	N/A	“(To) explore the outcomes of teaching empathy and critical thinking to solve environmental problems” (p. 64)
Endacott & Pelekanos (2015)	USA* Not Reported 12 to 13 years- old	Case Study Report	N/A	Description and explanation of a case study denoting the implementation of a programme designed to invoke historical empathy.
Glina (2015)	New Jersey, USA N = 73	N/A	Intervention: Quasi-	“To examine the impact that an instructional method steeped in the dynamics of dialogical

	Nine to 10 years-old		Experimental Design	inquiry has on students' attitudes and beliefs about aggression" (p. 1)
Iaosanurak, Chanchalor, & Murphy (2016)	Trat, Thailand N = 30 11 and 12 years-old	N/A	Intervention: Quasi-Experimental Design	"(To) design and test an intervention with elementary-aged children to promote social and emotional learning around technology" (p. 1639)
Mary (2014)	France* N = 40 Seven to 11 years old	Intervention: Interviews & Focus Groups (Constant Comparative Method)	N/A	"To investigate the role of co-operative games and circle time activities in fostering positive peer relations in two French Primary classrooms" (p. 125)
Parker (2016)	Ontario, Canada Not Reported	Ethnography	N/A	"To examine the degree to which peacebuilding dialogue processes were implemented in 3 elementary school classrooms and how diverse students, particularly newcomer immigrants, experienced these pedagogies" (p. 104)
Sassen (2012)	Massachusetts, USA	Intervention: Observation	N/A	To explain and evaluate the effects a programme

Siddiqui, Gorard, & See (2019)	N = 24	& Video Analysis		called ‘Drums & Poetry’ has on children’s empathic connections with others.
	Seven to nine years-old			
Siddiqui, Gorard, & See (2019)	England, variety of regions	Intervention: Interviews & Evaluative Reports	Intervention: Quasi-experimental Design	To explore the effects of a P4C intervention on non-cognitive measures, including empathy.
	N = 2722			
Stinson (2015)	Eight to 11 years-old			
	Brisbane, Australia	Intervention: Observation, Video Analysis, Interviews and Focus Groups	N/A	To describe and explain the effects of an oracy intervention on students’ ability to communicate orally.
Stinson (2015)	N = 22			
	Nine -10 years-old			

Note: *Endacott and Pelekanos (2015) and Mary (2014) do not report the exact locations of their studies therefore, it is assumed that their studies took place in the countries of their research institutions.

4.1 Range of Study Designs

As shown in Table 2, seven of the nine studies included were intervention studies and the other two were a case study (Endacott & Pelekanos, 2015) and an ethnography (Parker, 2016). This immediately suggests that intervention studies are preferable to researchers in this field. Of the seven interventions, two collected quantitative data (Glina, 2015; Iaosanurak et al., 2016), four were qualitative reports (Ampuero et al., 2015; Mary, 2014; Sassen, 2012; Stinson, 2015) and one study used a mix-methods approach (Siddiqui et al., 2019). As shown in Table 2, from an axiological perspective, there is a clear difference within the intervention

studies between empirical studies, that utilise measures collecting data (Ampuero et al., 2015; Glina, 2015; Iaosanurak et al., 2016; Mary, 2014; Parker, 2016; Siddiqui et al., 2019), and the studies that seek to describe and explain specific programmes (Endacott & Pelekanos, 2015; Sassen, 2012; Stinson, 2015). The lack of empirical evidence presented highlights the low-level methodological rigour and reliability of the latter studies' findings (as discussed in later sections of this chapter).

The quantitative studies adopted Randomised Control Trials (RCT) or Quasi-experimental designs, involving pre-intervention and post-intervention tests. This allows for, in theory, the presentation of the statistical effects from the intervention. However, as will be presented in section 4.6, Glina (2015) did not report statistically analytical data. It is prevalent to note the disparity in sample sizes within the quantitative studies also. Siddiqui et al., (2019) have 2722 participants whilst Iaosanurak et al., (2016) have less than one percent of this. Therefore, the former is more statistically reliable and powerful, thus, the conclusions drawn from it will be far more impactful than that of the latter.

The remaining four intervention studies adopting a qualitative design, purport data throughout the intervention period. Although, it should be specified that the conclusions drawn by all researchers focused on the data that succeeded the interventions (in the form of interviews, reports or focus groups). Only Ampuero et al., (2015) and Mary (2014) evidenced a juxtaposition of their post-intervention data with data gathered during the intervention. This suggests that the development of empathic and affective behaviours is then not being documented adequately in all of the qualitative interventions. This is particularly prevalent if empathic behaviour is to be viewed as a moral developmental construct: without fully reporting all the steps taken, a key stage in this may be missed.

The ethnographic study, Parker (2016), employed an immersive and long-term method which provided rich data. Although not an intervention and, therefore, not reporting the changes in empathy, Parker (2016) details many specific dialogic practices undertaken by teachers that were reported to engage students empathically. Endacott & Pelekanos (2015), although a case study and not an ethnography, attempts to do the same. However, their methods of description and explanation rather than that of critical analysis suggest an element of reporter bias and produces far less detailed data.

4.2 Methodological Rigour

4.2.1 Reporting Rigour The nine studies vary greatly in the quality of reporting. Ampuero et al., (2015); Glina (2015); Iaosanurak et al., (2016); Mary (2014); Parker (2016) and Siddiqui et al., (2019) all adopt an empirical and objective tone that underpins high quality research. However, Endacott & Pelekanos (2015); Sassen (2012) and Stinson (2015) feature first person narration and uncited opinions regarding their programmes. This portrays a clear undertone of reporter bias. The quality of data that is reported lessens in reliability and validity because of this. Consequently, the data presented in these three studies must be viewed with higher degrees of caution.

4.2.2 Design Rigour As suggested in sections 2.5, 2.6 and 2.7, empathy's multidimensional and multifaceted conceptualisation and operationalisation in most studies seeking to measure empathy dictate that multiple measures are required to capture the phenomenon. Particularly those that combine statistical and behavioural evidence. From the nine retrieved articles, Siddiqui et al., (2019) were the only study to employ a mixed-methods approach. Consequently, it must be initially recognised that the data provided by all eight other studies cannot purport the same level of richness and validity as Siddiqui et al., (2019) due to the missing conceptual elements not captured by their mono-dimensional methods.

4.2.3 Methodological Rigour The methodologies of studies such as Ampuero et al., (2015), Glina (2015), Iaosanurak et al., (2016); Mary (2014), Parker (2016) and Siddiqui et al., (2019) were rigorous and reliable, ensuring objectivity and controlling for biases. This was highlighted in explicit discussions and critical analysis of the implemented methodologies. Although, the quality did vary. For example, Glina (2015) chose an empathy measure with low reliability and therefore did not include post-intervention statistical analysis (discussed further in section 4.6). However, the remaining three studies (Endacott & Pelekanos, 2015; Sassen, 2012; Stinson, 2015) had no such critical analysis or discussion and further, reported little evidence to support their findings. These three studies' low methodological rigour imply a negligence in research procedure and consequently, their data and subsequent conclusions will be viewed with less significance.

4.3 Conceptualisations of Empathy

Several different conceptualisations of empathy were identified in the nine studies. In line with the work of Hall & Schwartz (2019), this was to be expected. It was further anticipated that empathy conceptions would be multidimensional and that studies would operationalise empathy as relating to a variety of different socio-emotional skills (as is described in section 2.5). However, it was expected that the focus would be upon participants' recognition of the emotions, affective arousal, and appropriate behaviour (relating somewhat to their moral duty or dispositions).

4.3.1 Perspective Taking & Appropriate Behaviours Firstly, the three studies that collected quantitative data (Glina, 2015; Iaosanurak et al., 2016; Siddiqui et al., 2019) all defined empathy as understanding another but, with an added moral disposition that utilises this understanding on a larger scale to drive 'responsible' and 'pro-social' behaviour (i.e. using empathy as a tool to create a more just and equal environment). The three studies pass what may be described as the simple definition of empathy (i.e. Mead's concepts of stepping into another's shoes) and immediately equate empathy with 'responsible' and 'pro-social' behaviours that goes beyond affective arousal.

4.3.2 Empathy & Altruism Secondly, Ampuero et al., (2015), Parker (2016) and Sassen (2012) all conceptualised empathy as a moral duty to help others and make everyone feel accepted within a community with appropriate behaviours and with emotional understanding (akin to the conceptions of Nussbaum, 2001 and Schroeder, Graziano, Batson, Lishner, & Stocks, 2014). Similarly, to the first grouping, it appears that behaviour is highlighted as the defining feature of empathy, rather than the recognition and understanding of another's emotions.

4.3.3 Historical Empathy Endacott and Pelekanos' (2015) study is somewhat anomalous in the dataset as it conceptualises empathy in historical terms viewing it solely as a tool and mechanism for socio-historical understanding and learning. However, a definition provided by Endacott and Brooks (2013) is used, which points towards the cognitive and affective engagement of students and places importance upon perspective taking.

4.3.4 Misoperationalisation Two studies (Mary, 2014; Stinson, 2015) poorly operationalise empathy, in and of itself, and focus upon similar but distinct phenomena as described by Batson (2009). Mary (2014) and Stinson (2015) discuss empathy as an outcome in their qualitatively reported interventions but then do not define empathy at any stage. Conceptions of interpersonal and emotional understanding, altruistic tendencies and empathetically driven communication skills are alluded to throughout. However, no formal definitions are provided, nor are there any empirical measures. Mary (2014) and Stinson's (2015) studies, therefore, are deemed to be less methodological rigorous as a consequence because of this lack of clarity.

4.4 Dialogic Pedagogy & Empathy

4.4.1 Dialogic Practices As explored in sections 2.3 and 2.9, dialogic pedagogy and programmes utilising it, focus upon the collaborative elements of academic work and it is these collaborative elements where empathy may be aroused and enhanced (Schertz, 2007). Within the dataset, many collaborative conceptualisations and methods of pedagogical engagement were identified. Table 3 reports some of these components shared by multiple studies. These practices are derived from the work of Alexander (2017), Gregory (2007) and Mercer & Howe (2012) and have then been subsequently identified within the dataset.

Table 3

Shared Components of Dialogic Pedagogy

Practice	Description	Studies
Facilitated Discussion	Topics chosen and governed by facilitator but, process of dialogic engagement undertaken by two or more student interlocutors.	Used in all studies
Goal Oriented Dialogue	Discussions with a goal in mind to keep dialogue on track.	Used in all studies

Small, Collaborative Work	Discussions began at a very small level with no more than three or four participant and then grew to become whole class engagements as the basis for larger discussion.	Used in all studies (all studies bar Iaosanurak et al., 2016)
Self-Reflective & Perspective Taking Dialogue	Particularly used in interventions as a means to stimulate emotionally driven thoughts and conversations.	Ampuero et al., (2015); Glina (2015); Mary (2014); Parker (2016).
Collaborative Work to Stimulate Communication with Others	Purposefully places students in an environment that allows emotional conversational and feelings to be shared.	Iaosanurak et al., (2016); Mary (2014); Parker (2016); Sassen (2012)
Dramatic Endeavours	Taking on characters and adopting a stance based on someone else's perspective or persona.	Endacott & Pelekanos (2015); Parker (2016) and Stinson (2015)

A further two noteworthy practices that directly relate to content, that are not detailed in the table, also appear: firstly, the implementation of collaborative problem solving. Ampuero et al., (2015) and Iaosanurak et al., (2016) report the use of problem-solving tasks, requiring input and opinions from all parties involved. This is a common feature of dialogic pedagogy because of the requirement for communication between individuals and the stimulation of 'high-order' reasoning skills (Alexander, 2017; Gregory, 2007; Lipman, 1988). The second pertains to the conflict dialogues utilised in Endacott & Pelekanos (2015) and reported in Parker (2016). This form of dialogue actively engages students in debate and forces argumentation, demanding resolution and affective engagement (Hess, 2009).

4.4.2 Dialogic Content The conceptions of dialogue as a mechanism for triggering empathic thought processes varied in the dataset. This difference in triggering is mainly based around subject matter more than the processes by which individuals engage dialogically with one another. One shared factor within all nine studies is the element of emotive and thought-provoking conversational topics. In all the studies the discussion undertaken and facilitated allowed students to explore, cognate and debate issues that, theoretically, arouse empathy (in line with Decety, 2011 and Hoffman, 2000). However, three particular subject-matter categories were identified as being used in the nine studies.

Firstly, Ampuero et al., (2015), Iaosanurak et al., (2016), Glina (2015) and Mary (2014) overtly discussed pro-social behaviour (i.e. what behaviours were and weren't appropriate in aid of something specific) and moral responsibility. Discussions of this nature were specifically and overtly brought up to alter and 'enhance' decision-making and thought processes. Secondly, four studies (Endacott & Pelekanos, 2015; Mary, 2014; Parker, 2016; Siddiqui et al., 2019) reported dialogic practices being used within curriculum-specific lessons (for instance, history, social studies and Personal, Social, Citizenship Education). Lastly, interspersed with these previous topics, seven of the nine studies (barring Iaosanurak et al., 2016 and Mary, 2014) related their dialogues to 'real-life' events, issues and crises; juxtaposing the content of the sessions with events taking place currently around the world and in the participants' communities.

4.5 Varying Characteristics of Dialogue-Based Programmes

4.5.1 Programmes and Their Theoretical Ideas From the nine studies, eight different dialogue-based programmes were identified, as shown in Table 4. The variety in programme description and specificity, although sharing many conceptual and pedagogical components (as discussed in the previous section) is significant as it points to differences in theories that inform the intervention. For example, P4C (used in Glina, 2015 and Siddiqui et al., 2019) as an educational programme is steeped in Deweyan theory driven by the stimulation of critical thinking and practical, experiential learning (Lipman, 1976). In this vein, the P4C programme allows for much interpretation within the classroom, both from the facilitators' and participants' perspectives, but guides everyone involved in systematic, collaborative inquiry (Gregory, 2007). To use a programme driven by psychological theory, Stinson's (2015)

‘Oracy’ drama intervention was developed and conceptualised using Alexander’s (2017) dialogic classroom theories. In turn, Alexander’s (2017) work is rooted solidly in Vygotskian socio-cultural conceptions surrounding the use of language as a tool when formulating children’s thinking and propensity for social interaction (Vygotsky & Cole, 1978). Parker (2016) differs from this somewhat by reporting on practices informed by a conglomeration of theoretical ideas from theorists such as Apple, Freire, and Davis.

Table 4

Dialogue-based Programmes Adopted

Study	Programme & Description	Intervention Length
Ampuero et al., (2015)	A programme explicitly teaching empathy and critical thinking (operationalised by an APA* Delphi Study) to solve local community environmental problems.	Full school year
Endacott & Pelekanos (2015)	Developed by Endacott & Brooks (2013), utilising some of the components such as ‘democratic’ debates, similar to the ancient Athenian Assembly.	Not reported
Glina (2015)	P4C* programme designed to discuss pro-social, anti-aggressive, anti-bullying behaviours.	Eight weeks
Iaosanurak et al., (2016)	Technology-based intervention designed to improve socio-emotional learning and development using group work around a computer; playing games and doing tasks to stimulate socio-emotional responses within the group.	Eight weeks
Mary (2014)	Circle time and collaborative games intervention to create an environment to share emotions and opinions freely.	Full school year
Parker (2016)	Practices that use conflict dialogue to induce peace-building processes and empathic thinking.	Full school year
Sassen (2012)	Combining collaborative music making and poetry writing to improve peer-relations.	10 weeks
Siddiqui et al., (2019)	P4C* programme used in a variety of subjects (e.g. PSHE* and English) and in many different contexts.	12 months

Stinson (2015)	Drama Intervention - Teaching 'Oracy' and intercultural awareness to children by introducing a drama programme. Three weeks Short programme developed by authors.
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Note: *APA – American Psychological Association; P4C – Philosophy for Children; PSHE – Personal, Social, Health Education.

4.5.2. Intervention Length The length of interventions (as shown in Table 4) varied between three weeks and a minimum of eight intervention sessions (Stinson, 2015) and twelve months (Siddiqui et al., 2019). The disparity in intervention lengths make it difficult to equate the studies against one another directly as it is far more likely that an intervention will be effectual the longer it lasts. However, this disparity points to a methodological flaw in the shorter studies from a learning perspective. Dialogue interventions have been shown to be effectual although, as pointed out by Mercer & Howe (2012), students require longer-term exposure to this type of pedagogy and classroom environment for this to happen.

4.5.3 Facilitator Fidelity A key factor within intervention studies is monitoring facilitator fidelity and the training of educators in a potentially new form of practice. This is because dialogic pedagogy requires specific forms of facilitative teaching which differ from that currently taught to teachers when training (Alexander, 2017). Although it may be difficult to guarantee the quality of all participating facilitators outside of the research team, training must be given, and assurance made in order to mitigate any potential pedagogical shortcomings or poor reporting. However, assurances were only explicitly made in two studies. The first, Siddiqui et al., (2019), described the process in detail and guaranteed that teachers all received training from the Society for the Advancement of Philosophical and Reflection Enquiry (SAPERRE). The second was Glina (2015) where it was reported that a professor from the IAPC described as 'highly-experienced' conducted the sessions. In the remaining seven studies it was not reported whether the facilitators of the interventions/programmes had received any specific training beyond researcher explanation and description. However, it is important to note that, just because training is reported, training does not mean that the facilitator fidelity is controlled for. One cannot assume SAPERE's training is perfect nor, can this simple statement suffice in transparent reporting.

4.6 Data Collection: Measures and Methods

It is prudent to immediately denote that the following three sections (4.6, 4.7 and 4.8) focus solely on the measures and methods as the outcome variable. However, in many of the studies, the data collection methods also sort to collate data relating to other variables and constructs (e.g. Glina, 2015, measuring attitudes towards bullying and violence). The delineation between such methods was mostly recognised in the retrieved papers, though, some do not (i.e. Sassen, 2012, and Stinson, 2015). In the case of the latter, decisions were made by the researcher in accordance with literature discussed in sections 2.5, 2.6 and 2.7 of the current study.

4.6.1 Quantitative Measures In the three quantitative studies, three different measures were used. Siddiqui, et al. (2019) used a vignette-response measure (developed by Gorard & Smith, 2010) to report empathy and presented their data as a percentage of those who responded empathetically, those who didn't and then the subsequent 'odds-ratio', representing the strength of the association between events pre and post intervention. The categorisation of responses was driven by prior conceptualisations of empathy (i.e. emotional understanding leading to appropriate behaviour).

Glina (2015) used the 'Empathy-Teen Conflict Survey' (ETCS), a simple five-scale measure. The survey "measures the ability to listen to, care for, and trust others" (Glina, 2015, p. 7). The survey is reported by Glina (2015) as psychometrically unreliable, reporting "a pre-test alpha of .47 and a post-test alpha of .46" (p. 8).

Iaosanurak et al. (2016) used the Thai Emotional Intelligence Screening Test (TEIST) which specifically has six items addressing empathy: "these include noticing when people's emotions change, being sensitive to the feelings of others, accepting ideas of others, acceptance or disapproval of others, being envious of the attention others receive (reverse scored) and, helping others" (p. 1654). Iaosanurak et al., (2016) report the reliability of the test by citing an unpublished doctoral thesis, without statistical data.

4.6.2 Qualitative Methods Table 5 presents the variation in methods used in the studies that collected qualitative data.

Table 5

Qualitative Data Collection Methods

Study	Method(s)
Ampuero et al., (2015)	Community-based research: observations, focus groups and interviews.
Endacott & Pelekanos (2015)	Classroom session observations.
Mary (2014)	Interviews and focus groups.
Parker (2016)	Ethnography
Sassen (2012)	Video-analysis of observed sessions and teacher reports.
Siddiqui et al., (2019)	Classroom session observations and teacher reports.
Stinson (2015)	Video-analysis of observed sessions and interviews

4.7 Quantitative Results: A Synthesis

Glina (2015), who's outcome variable was simple described as empathy, did not report any post-intervention statistical analysis data. Raw survey data suggested that there was a minor increase in ETCS scores for the treatment group (roughly 0.73 in mean scores) but, a larger increase for the control group receiving 'regular instruction' (1.92). Consequently, one cannot fully assess the interventions effects on empathic arousal or behaviour due to the lack of statistical analysis. Although, the raw data indicates that the intervention did not have the desired effect of improving attitudes towards bullying and enhancing empathy. Glina (2015) described these results as 'disappointing'.

Iaosanurak et al., (2016) reported an overall increase in raw scores of empathy (the outcome variable) with a mean increase of .52 but, it was found not to be significant ($t=.71$). However, it was reported that, when analysed for gender differences, that girls had had a significant increase in empathy post-intervention ($t=3.89$). Although these results suggest that Iaosanurak et al.'s (2016) intervention was effective in (theoretically) increasing empathic arousal and portraying empathically driven behaviour, one must consider the sample size for the study ($n=23$).

Siddiqui et al., (2019) reported a significant difference in empathetic responses (the outcome variable) to their vignette-response measure in the intervention group. Their data reported raw score difference pre and post-intervention of six percent and one percent for the treatment and control groups, respectively. Furthermore, a significant increase in empathetic responses from students eligible for Free School Meals (FSM), was reported: the raw data presented an eight percent difference in empathetic responses and a post-odds ratio increase of .26 (compared to .13 for all treatment group students). Siddiqui et al., (2019) denoted that these are strong results. This suggests that the data implies that their P4C intervention positively enhanced students' empathic responses.

Ideally, these studies' results (particularly effect sizes) would be equated against one another in order to undergo rigorous statistical comparison. Unfortunately, the disparity in tests, design and the statistical evidence reported means that this type of analysis cannot take place. However, this methodological discrepancy points to several important aspects within research into dialogue and empathy: firstly, the lack of quantitative data generally; secondly, the discordance and lack of unanimity when researching (and specifically measuring) empathy and thirdly, the paucity of rigorous statistical research into the relationship between dialogue and affective development (as noted by Siddiqui et al., 2019).

4.8 Qualitative Results: A Synthesis

Table 6 presents the data regarding the qualitative results of the seven studies that collected it.

Table 6
Qualitative Results

Study	Description of Results
Ampuero et al., (2015)	Evidence suggesting increased empathic thought for the local environment and community and other classmates. The programme is reported to have had a greater effect on younger students more than older. Increase in care, concern and consciousness surrounding the environment and one another.

Endacott & Pelekanos (2015)	Reports of teacher comments pertaining to increased affective responses to topics discussed and engagement. Very few examples given alongside anecdotal reporting.
Mary (2014)	Increased sharing of emotions; improved classroom cohesion and decreased negative view of others reported in student focus group data particularly. Further reported that quieter, more timid students found their voice more and may have benefitted more from the intervention.
Parker (2016)	Mixed successes on empathic responses and socio-cultural awareness. Two of the three classrooms reported to have increased empathic awareness and responses to conflict situations. The other reported to have not been as effective in this process. Children of immigrant backgrounds reported to have benefitted significantly in classrooms that had increased empathic awareness.
Sassen (2012)	Enhanced peer relations and caring about others. Particular examples of this when discussing the sharing of resources and the collaborative working environment created via the collective poetry writing.
Siddiqui et al., (2019)	Responses from teachers, students and observers presented positive feedback from the intervention regarding empathy and compassion in the form of increased communication and 'being listened to'. Further, it was reported that students actively wanted to participate, collaborate, and communicate in more depth and more often as a result of the intervention.
Stinson (2015)	Parent-reports report an increase in perceptions of their children's emotional engagement and communication (at home and at school). Severe lack in evidence for conclusions drawn.

Chapter 5: Discussion

5.1 Overall Trends and Analysis

Although data rich in their own right, a total of nine papers from which to extract and synthesise data from to arrive at a definitive conclusion effecting an entire field of research is simply not enough. Therefore, to reiterate aspects of the current studies' rationale, the conclusions drawn from the analysis of this data does not seek to be exhaustive and irrefutable, they seek solely to be an interpretative addition to the research already available to the field.

It is recognised that this review has taken upon itself constraints to limit the number of studies appearing within. However, overall, the number of studies identified in this review implies a general lack of research in this area. This is both quantitatively and qualitatively. As showcased by Gorard, Siddiqui, & See (2017); Mercer (2008), Topping, Trickey, & Cleghorn (2019); Trickey & Topping (2004) and more, dialogue in education is a very well researched area. Nevertheless, the evidence of the effect that dialogue has upon non-academic cognitive attributes and socio-emotional development is lacking (Siddiqui et al., 2019), a claim that is directly supported by the data, or lack thereof, in this review.

Overall, the nine studies varied greatly in results, methodological rigour and consequently, reliability. Although during the systematic searches there were criteria in place to attempt to ensure methodological rigour (i.e. not including studies that were not published in scholarly journals), there remained studies included whose research methods, reporting and designs were of a low standard (see section 4.2). Empathy's plurality and adoption in multiple disciplines necessitates measurement that uses a multifaceted approach (Decety, 2011). Consequently, the fewer methods of measurement employed, the less rigorous the research is likely to be. Studies that conducted greater numbers of tests or implemented study designs that allowed for greater amounts of data to be collected (for example, Ampuero et al., 2015; Parker, 2016 and Siddiqui et al., 2019) were also the studies that had the highest level of methodological rigour alongside the highest quality of reporting. Furthermore, some studies' lack of clarity in definitions of conceptual terminology (expressly empathy, and the subsequent usage of related empathy-based constructs) equated to a further lack of methodological rigour and poor reporting. The most overt examples of this are Mary (2014) and Stinson (2015).

As shown in Siddiqui et al., (2019), a combination of both quantitative, empirical data juxtaposed with qualitative, detailed participant responses creates far richer, more reliable data overall. Siddiqui et al., (2019) showcases this in their results reported also. Consequently, when interpreting the evidence provided in this dataset, these three aspects (i.e. multidimensional, methodological study design; quality of reporting and conceptual clarity) dictate the weight placed upon the conclusions drawn from the specific study. Therefore, Endacott & Pelekanos (2015), Sassen (2012) and Stinson (2015), will have little influence in this discussion.

5.2 How is empathy operationalised?

Six studies operationalised empathy in two separate but, related ways: the first three studies (Glina, 2015; Iaosanurak et al., 2016; Siddiqui et al., 2019) conceptualised empathy as being emotional recognition with a subsequent duty to act in a responsible, pro-social fashion. The second three (Ampuero et al., 2015; Parker, 2016; Sassen, 2012) argued that empathy goes beyond just understanding and is a moral motivation to create a community of acceptance and compassion. Both definitions have a clear emphasis on the behaviour that is stimulated by, or is the manifestation of, empathy. This moves away from the simple, and arguably original, conceptions put forward by Freud and, most notably, Mead driven by basic emotional recognition via perspective-taking.

This prominence is resoundingly shared by the philosophical/theoretical studies that were also found in the final systematic search: Damianidou & Phtiaka (2016); Fletcher (2016); Mizell (2015); Schertz (2007); Sharp (2007) and Zembylas (2013; 2018) all have a very clear emphasis on the behaviour that is defined as being as a result of empathy or, is conceptualised as ‘empathy in action’. This may suggest two things: firstly, Mead et al.’s (2015) definition of empathy surrounding stepping into another’s shoes and showing a rudimentary understanding of their emotions is viewed as overly simplistic/defunct; and/or secondly, that this crucial step when researching empathy is being neglected.

This may be a suggestion that the research on dialogue and empathy currently focalises the affective branch of empathy and the stimulated behaviour as a result of this. This is made clear when one observes the measures and data collection methods utilised in the six studies

found in the systematic searches that operationalise empathy is this way. Only Iaosanurak et al., (2016) has a test that explicitly measures their participants' ability to initially recognise another's emotions. Siddiqui et al., (2019) use a vignette-response test which may also measure this however, it is not overtly stated and would not be aligned with their studies' earlier definitions of empathy.

One could argue that in qualitative studies, particularly those using observations as the main method of empathic assessment, researchers can only measure the subsequent behaviour of a participant. In accordance with this criticism, one could further argue that, using the Empathy-Altruism Hypothesis (Schroeder et al., 2014) and other theoretical constructions regarding the power and manifestations of empathy (for example, Boler, 1999; Nussbaum, 2001), that these observations and behavioural measures are vital for research in empathy. However, as discussed in section 2.5, empathy, in and of itself, is "the adoption of another's affective state so that both the empathizer and the empathic target... are in a similar state" (Coll et al., 2017, p. 132). Although the studies above take empathy into a domain of philosophical and moral responsibility and action, transcending the phenomenon as a cognitive process and suggesting it's potential social magnanimity, to ignore the fundamental, psychological constructions of empathy is to only operationalise and measure part of the process that these studies are seeking to stimulate or measure. Furthermore, when discussing this process in the context of dialogic education, tangibility in the measurement of empathy is required in order to build the foundations for further research. As the relationship between dialogue and empathy in education, although theoretically connected, is yet to be established, this initial process of introductory, exploratory research requires this palpability.

In summation, it is clear that the majority of the studies found in this review operationalise empathy as a means to, or as, behaviour that speaks to an altruistic, pro-social and morally responsible sensibility. This relates to the philosophical and moral branch of empathy research far more than the neuroscientific and psychological (see sections 2.5 and 2.7). This highlights and reiterates the points made by Batson (2009), Decety (2011) and Hoffman (2000) that empathy's plurality makes it both difficult to conceptualise and measure. Consequently, the study's identified in this review that carefully and precisely define their conceptual and measurable parameters of empathy (i.e. Ampuero et al., 2015; Parker, 2016; Siddiqui et al., 2019) should, therefore, be used as a basis upon which to build further research due to this, albeit subjective, clarity.

5.3 What pedagogical practices are employed when seeking the development of empathy?

Although the studies identified in this study's searches varied in quality and positivity of results reported, many of the pedagogical techniques that were employed were the same. Two key practices in particular featured in all nine studies and a third appeared in eight of the nine identified. The first was the concept of facilitated discussion; the second was goal-orientated dialogue and the third, using small collaborative groups as a basis before turning to larger discussions. These three components are staples of the P4C programme (Gorard et al., 2017; Gregory, 2007; Lipman, 1976; Topping et al., 2019). All three practices allow teachers the ability to control the direction, pace and tone of dialogues undertaken by students but, crucially, do not interfere with the specifics of their conversations. Not only may this empower students to discuss the topics in question more freely, due to the lack of direct instruction in exploration, this combination of practices creates an element of purpose and tangibility in discussion, a key Deweyan principle (Dewey, 1997; Lipman, 2003). The usage of these three practices suggests the significant influence that P4C, in particular, has had generally on the development of dialogic pedagogy. Furthermore, it highlights how necessary it is to create an environment that actively facilitates dialogue in a classroom: by having a framework, such as P4C, pedagogues can build on the structure and foundation of the procedures in place to ignite and sustain conversations being had in classrooms (Fair et al., 2015; Gregory, 2007). However, having those pedagogical underpinnings and then building upon them are two separate steps, as shown in the variance in results and successes reported in the studies found in this review.

The overall reporting of specific pedagogical practices undertaken in the nine studies was vague and focused more upon the holistic elements of each pedagogy. Though, particularly in studies that included classroom observations, instances of more detail reported did occur. For example, in Parker (2016) very detailed accounts of practices, justifications for those practices and the effectiveness of those practices were reported:

“Mr. Hiroshi assigned less-outspoken students to play the roles of these historical figures. Using his authority this way (assigning roles to provide more diverse students' voices in the classroom) appeared to tone down typical

dominant students... Mr. Hiroshi's assignment of these historical roles gave them power to lead and speak for their conflicting groups." (p. 122).

In juxtaposition, Ampuero et al., (2015) were vague about the specific practices undertaken by the researchers but, were very explicit about what general premise the researcher was adopting (i.e. teaching about the community environment in a practical setting and, conceptually what that meant). However, within both these examples the conception of 'teachable moments' (an unplanned situation that a teacher may use to highlight a certain relevant point) was shared and utilised as a key pedagogical practice.

Similarly, using two studies that adopted the P4C intervention, Glinn (2015) reported in detail regarding the specifics of what occurred in the classrooms during intervention sessions. Whereas Siddiqui et al., (2019) did not and only alluded to how the overall P4C programme would be implemented. Although, in reality this would have been far more difficult for Siddiqui et al., (2019) due to the sheer number of participating classrooms they had. Therefore, even though the level of detail when reporting these dialogic practices varied, the data strongly suggests that many similar practices are being employed when using dialogue to develop empathy. Consequently, in the future, it would be beneficial if researchers explicitly reported these practices for reasons of fidelity, consistency, and rigour.

The above strategies denote the shared components of how dialogue was found to be enabled generally, however, they do not discuss how dialogue may have been used to stimulate and/or enhance empathy. As presented in section 4.4, this empathic stimulation was often specifically driven by the subject matter that was being discussed. All nine studies utilised emotive and thought-provoking topics. Therefore, the data suggests that dialogue was seen as the vehicle which drove this empathic arousal and the emotive topics were the mechanisms which sort to create more empathetic feelings, decisions, and behaviours in these studies. Although separate conceptually and practically in this sense, the two act fairly symbiotically. As discussed by Fletcher (2016), Sharp (2007), and Zembylas (2018), all theoretical papers found in this review that if there were issues in the facilitation of dialogue, the lesson's content (in this case, emotive subjects) will not be discussed. Similarly, if the emotive topics are not being discussed appropriately, the purpose of the empathy-arousing dialogue is lost. This suggests a (potential) dissonance between the theoretical conceptions of how dialogue may stimulate empathy development and the practical facilitation of this dialogue.

One could further argue that without this emotive element of dialogue, humans may struggle to arouse empathy and, accordingly, empathic behaviour (Decety, 2011). As showcased in studies where conflict and emotional trauma (amongst other topics) were at the forefront of the dialogues (especially Parker, 2016), empathic engagement was reported. Consequently, this evidence portrays how vital both components of dialogue are to the manifestation of empathy.

In summary, there is a clear pedagogical foundation upon which dialogic pedagogies are being undertaken in both the intervention, case study and theoretical literature identified in this review. This basis is very strongly rooted in previous research relating to P4C. However, as suspected, specific dialogic practices that seek to enhance empathy are not reported in the same detail as those relating generally to dialogic pedagogy. Furthermore, although these practices were identified as being used in this context, this says nothing regarding the exclusive effectiveness of these practices in developing empathy and delivering content that may enhance this process. Further research and exploration are therefore required in order to identify and assess this. In addition, once these are identified and assessed for effectiveness, this evidence must drive future interventions. However, the data on targeted outcomes from the retrieved articles, discussed in the next two sections, will act as a proxy for their successfulness in the absence of any specific literature regarding their effectiveness in developing empathy in middle-school aged students.

5.4 Is there quantitative evidence to suggest an association between dialogue-based practices and the development of empathy?

As presented in section 4.7, only three studies collected quantitative data reporting mixed levels of success. Siddiqui et al., (2019) reported an increased number of empathetic responses to their vignette-response measure of one percent in the control group and six percent in the intervention group. Furthermore, the students eligible for FSM intervention group significantly increased with an odds-ratio increase of .26. (contrasted with a .13 for all students in the intervention group). This suggests the P4C, dialogue-based intervention was effectual in increasing empathy (or at least empathetic responses) and that it was particularly effective in increasing the empathetic responses in those students who come from poorer socioeconomic

backgrounds. One could argue that the methodological strength of Siddiqui et al.'s (2019) study design is reflected in these robust results. Additionally, the controlled testing timeline, the sheer size of participant pool (968 intervention group, 1,469 control) and the low drop-out rate (ten percent) portrays the high statistical reliability of this data.

In juxtaposition, Glina (2015) provides no post-intervention analytical statistical data for empathy. Although the conceptual consideration of why P4C, as a dialogue-based programme, maybe effective and the adoption of a basic intervention design were decided on similar theoretical grounds (rooted in parallel past literature) to Siddiqui et al., (2019), the lack of rigorous methodological execution and significantly shorter intervention could be to blame for a lack of comparability in results. Glina (2015) suggests a “different quantitative measure or combination of measures” (p. 11) alongside, longer exposure to P4C may have yielded more effectual results in the study's participants. One may further argue that similar to Siddiqui et al., (2019), the utilisation of a control group would also enhance this.

Jaosanurak et al., (2016), on the other hand, report a significant increase ($p < 0.1$) in empathy results when gender differences are considered ($t = 2.93$ versus $t = 3.89$). These results, unlike Glina (2015), initially, support the positive association between dialogue and empathy in middle-school aged students. However, when one deliberates upon the participant numbers in this study (23), the regional specificity (South-western Thailand), the lack of control group comparison and the length of intervention, one begins to question this support.

In summary, due to this lack of overall data, one cannot make any claims suggesting a correlational or an empirical association between dialogue-based practices and empathy in middle-school aged students as yet. Moreover, the inability to statistically equate the studies between one another also lessens one's ability to suggest the former may enhance the latter. However, the three studies, alongside previous conceptual work, may point towards how research in this field could show statistical evidence for this association in the future. As explained by Siddiqui et al., (2019), there is a lack of empirical evidence in the field of dialogic education and non-academic outcomes. When one combines this with a phenomenon with the conceptual depth and difficulty in measurability as empathy, one begins to understand that this process is unlikely to be straight forwards or without initial error.

5.5 Is there qualitative evidence to suggest an association between dialogue-based practices and the development of empathy?

The qualitative evidence reported in the nine studies showcased in this review, on the surface, would overwhelmingly suggest that there is a clear behavioural association between dialogue-based practices and the development of empathy in middle-school aged children. In the seven studies that report qualitative data all denote elements of their participants' behaviour, academic work and relationships 'improving', courtesy of empathic development (either directly or indirectly). Further, the studies present responses from teachers, students and/or parents indicating the development of empathy, both cognitively and affectively, as a result of the dialogic intervention/pedagogy. Although these reported results all vary in degrees of success and effectualness, the shared component for all is that dialogue effects students' empathic development positively.

However, as purported in section 4.2 and 5.1, the methodological rigour greatly varies. Therefore, the reliability of the conclusions drawn from the studies must be viewed sceptically. Ampuero et al., (2015) adopted a very exhaustive approach to gather as much data as possible and reported on much of this, quoting evidence from interviews and snippets from recorded conversations. The high-quality reporting supported the rationale of the intervention and led to the reporting of positive and effectual results. In comparison, the three other interventions reported using similarly 'exhaustive' approaches by implementing several methods of measure. However, when analysis took place and conclusions were drawn from the interventions, the evidence for their data was not supportive in so much as it was either not explicitly reported or not clear. For example, Stinson (2015) reports positive responses from students and teachers but does not expressly give examples or go beyond simply stating this during the analysis; instead, the parent-feedback data is evidenced. Similarly, Sassen (2012) discusses a great deal of data being taken from video and audio recordings of the intervention sessions but, evidences this only twice in total.

In addition, as alluded to previously in this study, when attempting to measure empathy qualitatively one can only measure the subsequent behaviours of what one assumes to be empathy. As highlighted by Coll et al., (2017), Hoffman (2000) and Maxwell & DesRoches (2010) the behaviour that one associates with empathy is not the arousal of empathy itself. Although, as Decety (2011) points out, empathy "(paves) the way for the development of moral

reasoning and motivates prosocial altruistic behavior” (p. 35). This suggests that empathy may be the direct cause of this behavioural shift. Regardless, without some form of empirical measure with which to compare, qualitative measurements of empathy can only provide one with so much evidence. Consequently, the qualitative evidence reported in these studies presented in this review alone is not enough to definitively declare a positive relationship between dialogic pedagogy and empathy.

In conclusion, one may not propose that the qualitative evidence presented in this review suggests an association between dialogue-based practices and empathy development in middle-school aged students. The lack of methodologically rigorous studies reporting data purporting a positive relationship between dialogue and empathy is not enough to warrant claiming this. Consequently, it is of paramount importance that rigorous methods are critically adopted during future research and that qualitative data be juxtaposed with empirical results to further affirm this relationship. As shown in Siddiqui et al., (2019), the mixed methods approach within this area of research provides the richest synthesis of data and the most thorough exploration and measuring of the multidimensional phenomenon of empathy.

Chapter 6: Further Research

This chapter seeks to fuse the information gleaned from the discussion and literature review chapters to suggest how further research in the area of dialogue and empathy in education may be conducted in an effective and robust fashion. A plan for a potential research study will follow. It is prudent at this stage to identify that the ideas presented in this section are not explicit directives but, suggestions for researchers driven by data and the gaps in the literature found in this study.

6.1 De-Equivocating Empathy

6.1.1 Synthesising Conceptualisations of Empathy Overall, research surrounding dialogue and empathy in education requires some specific ameliorations to be made, in accordance with the data reported in this systematic review alongside the data identified in the literature review. The emphasis is particularly strong with empathy in this sense. Firstly, and most importantly, empathy requires clear conceptualisation and operationalisation moving forwards. Issues with several retrieved articles in this review often stemmed from unclear conceptualisation and/or misoperationalisation of empathy, a common problem within research into empathy as highlighted by Batson (2009), Bošnjaković & Radionov (2018) and Hoffman (2000). Mary (2014), Sassen (2012) and Stinson's (2015) lack of clarity led to an overall lack of methodological rigour and thus, reliability. In the future, all elements of empathy in education should be acknowledged, operationalised and consequently, measured: the neuroscientific, as discussed by Decety (2011) and Influs, Masalha, Zagoory-Shaon, & Feldman (2019) (see Appendix 1); the psychological, outlined by Hoffman (2000) and Maxwell & DesRoches (2010) and the philosophical/moral, as detailed by Nussbaum (2001) and Schroeder, Graziano, Batson, Lishner, & Stocks (2014).

6.1.2 Measuring the Multidimensional Thus, in order to measure a phenomenon that is as complex and multidimensional as empathy, one must adopt a research design that measures as many components as possible. As shown in this review by Siddiqui et al., (2019), a mixed methods approach will enable this in a far more efficacious way than either solely a quantitative or qualitative design. Furthermore, not only will the data be greater in quantity but, also in depth and richness. The combination of quantitative and qualitative data allows participants

and researchers alike the opportunity to contextualise and justify their decisions and findings, respectively. However, it must be acknowledged that the extensiveness of both aspects of data must not be compromised when combined. Therefore, rigorous practices and research standards must remain high via the use of reliable and robust methods of measurement.

From a quantitative research approach, once again, combinations of measures to satisfy each conceptual element are required. None of the retrieved articles used a neuroscientific approach or measures that involved neuroimaging methods but, some studies did use self-reported measures or stimuli-response tests (Iaosanurak et al., 2016; Siddiqui et al., 2019). Although practical restraints would indubitably play a role in the application of this, researchers may consider combining methods of measure that assess the initial neurobiological arousal of empathy during stimuli-response methods. This initial mapping would then potentially contextualise and juxtapose quantitative observational and self-reported measures.

6.1.3 Extensive Observations From a qualitative perspective, extensive observational (or even ethnographic measures) will allow the reporting of rich and contingent data. As shown by Ampuero et al., (2015), empathic arousal and empathically driven behaviours require consistent observation over time in order to imply their intrinsic adoption. Retrieved articles in this review that did not undertake behavioural observations for long periods of time (for example, Sassen, 2012, and Stinson, 2015) reported data with limited depth and poor reliability. Consequently, in the same vein that an intervention seeking to enhance empathy must take place consistently over time (Feshbach & Feshbach, 2009), so must the qualitatively collection of data. A combination of Ampuero et al.'s (2015) near ethnographic methods and Mary's (2014) 'constant comparative methods' may serve this requirement.

6.2 Linking Dialogic Pedagogy and Empathy

6.2.1 Transparent Reporting As presented in chapters two and five, dialogue and dialogic pedagogy is not reported, discussed, or analysed in detail in terms of arousing and enhancing empathy as it is when researching its effectiveness on academic outcome variables. Therefore, future research into the relationship between dialogue and empathy in education should consider pedagogical and practical breakdowns. Reporting this specific detail will mean greater levels of transparency to research in this field. Furthermore, this will allow critical

analysis relating to reliability, fidelity, and general quality control to be more stringent and may lead to more robust and rigorous research. Siddiqui et al., (2019) reported the use of P4C and philosophical, collaborative inquiry and guaranteed facilitator fidelity (as far as one can) by denoting the training undertaken by all participating teachers. This is particularly relevant to a study so large. Although more explicit reporting may not fix the problems caused by this, the transparency allows the field of research to hold itself to higher, more rigorous standards.

6.2.2 Arousing Empathy with Dialogic Pedagogy With regards to the implementation of these dialogic pedagogical techniques, one must continually consider how empathy can be aroused and thus, enhanced. Firstly, the subject matter discussed must involve emotionally stimulating topics. In conjunction with the work of Decety (2011) and Hoffman (2000), alongside many other studies pertaining specifically to empathy education interventions as highlighted in the literature review, individuals cannot empathise without this emotional engagement. Parker (2016) in particular reported this as being a crucial factor. Secondly, the concept of scaffolded discussion is of paramount importance. The scaffolding process, as discussed by Alexander (2017), Daniels (2001) and Mercer (2008), is of huge significance during the socio-cultural learning process. Therefore, by undertaking this practice, one stimulates a student's cognition whilst, also, relieving them of some of the socio-cognitive burden of initialising a conversation from scratch (Mercer & Howe, 2012). As presented in Ampuero et al., (2015), this scaffolding process also affords facilitators the ability to be pragmatic in their educational approach via the adoption of such strategies as the 'teachable moments' philosophy. In a similar vein, one must, thirdly, consider the use of systematic, collaborative problem-solving or inquiry to engage students with one another. Without this fundamental interaction and purpose, dialogue cannot be sustain and empathy will not be aroused.

6.3 Future Research: A Proposed Intervention in the UK

6.3.1 Study Design & Purpose The following section, in light of the analysis and suggestions made above, outlines a UK based, mixed-methods study that is designed to stimulate and enhance empathy via the processes of dialogic pedagogy. It is prevalent to note that, although this plan is an ideal scenario and exists only as a theoretical construction

currently, realistic expectations have driven the study's morphology. Consequently, the plan is to be thought of as such, i.e. plausible yet, subject to change.

The study seeks to find whether classroom-based, student-to-student dialogue can increase empathic arousal and subsequent empathic behaviours within students aged between eight and 10 years-old. The intervention will be a co-produced programme with volunteer teachers that will enable increased levels of dialogue surrounding adapted materials from the "Action for Happiness" (AFH) scheme. AFH is a curriculum based around the work of King (2017), aiming to show students how they can help themselves and others to be happier (Action for Happiness, 2020). This will be provided in the form of intervention sessions in Personal, Social, Health Education (PSHE) classes. AFH will provide a good balance of introspective and collaborative thinking whilst actively arousing affective emotions within students due to its roots in empathy-stimulating content. This chapter continues and further describes the intervention in Appendix 9, where an example session plan, worksheet, and pedagogical breakdown can also be found.

Chapter 7: Conclusion

7.1 Limitations

7.1.1 Systematic Searching As stated in the introductory chapter, the use of a systematic review was not the first choice of study design for this project but, due to the global COVID pandemic, this was adopted. Consequently, time and resources were lessened significantly meaning certain alterations were made so procedures that otherwise may have been more extensive, were not. For example, the use of only three databases when systematically searching. A greater number of databases would have been adopted had the project had more time for these searching procedures. Furthermore, although systematic reviews are effective in gathering data, it is impossible to gather all data relating to a field. Although hand searches were undertaken in an attempt to rectify this, these too could have been more extensive. Therefore, it is acknowledged that the researcher will have missed articles and recognises this potential lack of data.

7.1.2 Quality Assurances As described in Boland, Cherry, & Dickson (2017) it is considered good practice to ensure another person can independently verify one's screening process to reduce bias. However, no other person was able to do this. Barring the researcher's supervisor, no other individuals provided any form of evaluation of the extraction process either. Therefore, although attempted objectivity was adopted throughout, it is fully accepted that the researcher may be a source of bias in this review. If this review were to be undertaken again, recruitment of an independent second reviewer would be a necessity.

7.1.3 Procurement & Limitations of Included Studies With an obvious logic, having fewer retrieved articles will lead to less data to present and discuss. Consequently, leading directly from the above, the results of this review would have been enhanced with a greater number of retrieved articles. However, some of the retrieved articles were not of the highest methodological standards of rigour meaning the data gleaned from them is likely to be less reliable (for instance Endacott & Pelekanos, 2015; Sassen, 2012; Stinson, 2015). Had the study had more articles that met the inclusion criteria, perhaps these studies may have been dropped for the lack of methodological rigour. It is recognised that including these studies may weaken the conclusions drawn from this study, alongside the overall rigour of this review. However, a

decision was made to keep them for extraction as this allowed further scrutiny to be placed upon some of the issues outlined in the literature review regarding, in particular, the misoperationalisation of empathy. Perhaps, if this review were done again, the inclusion of doctoral theses and then further methodological scrutiny during screening and initial extraction would alleviate the inclusion of poorer quality studies.

7.2 Summary

This study has systematically reviewed existing data pertaining to the under-researched field of dialogue and empathy in education. The data extracted from this review was analytically configured and juxtaposed against literature relating to each aspect of this uncharted field. This led to the conclusion that the relationship between dialogue and dialogic pedagogy with empathic arousal and enhancement remains undetermined. Although, conceptual and theoretical work would suggest that classroom dialogue, facilitated in a way that scaffolds learning, can stimulate empathy and improve empathic behavioural responses (Schertz, 2007; Sharp, 2007). Further research is required into the nature of this relationship. This research must begin to utilise more empirical methods of data acquisition so as to increase the amount of quantitative evidence for this relationship (Siddiqui et al., 2019). Moreover, research must begin to determine whether there is in fact a positive correlation between the two, where dialogue can enhance empathy. Society's requirement for a more empathetic and emotionally aware populace strongly argues that if there are plausible ways to enhance empathy and empathic responses, there is a moral duty to do so. As such, intervention research, such as the proposed study in section 6.3, may be a start in enacting this.

References

- Action for Happiness. (2020). Action for Happiness - Keys to happier living toolkit for schools. Retrieved from <https://www.actionforhappiness.org/toolkit-for-schools>
- Alexander, R. J. (2017). *Towards dialogic teaching : rethinking classroom talk* (Fifth edit). Thirsk: Dialogos.
- Ampuero, D., Miranda, C. E., Delgado, L. E., Goyen, S., & Weaver, S. (2015). Empathy and critical thinking: primary students solving local environmental problems through outdoor learning. *Journal of Adventure Education and Outdoor Learning*, 15(1), 64–78. <https://doi.org/10.1080/14729679.2013.848817>
- Anderson, R. C., Nguyen-Jahiel, K., McNurlen, B., Archodidou, A., Kim, S.-Y., Reznitskaya, A., ... Gilbert, L. (2010). The snowball phenomenon: Spread of ways of talking and ways of thinking across groups of children. *Cognition and Instruction*, 19(1), 1–46. https://doi.org/10.1207/S1532690XCI1901_1
- Barak, A., Engle, C., Katzir, L., & Fisher, W. A. (1987). Increasing the level of empathic understanding by means of a game. *Simulation & Games*, 18(4), 458-470.
- Baron-Cohen, S., & Wheelwright, S. (2004). The empathy quotient: An investigation of adults with asperger syndrome or high functioning autism, and normal sex differences. *Journal of Autism and Developmental Disorder*, 34(2), 163–175. <https://doi.org/10.1023/B:JADD.0000022607.19833.00>
- Batson, C. D. (1991). *The altruism question: Toward a social-psychological answer*. Hillsdale, NJ: Erlbaum.
- Batson, C. D. (2009). These things called empathy: Eight related but distinct phenomena. In *The Social Neuroscience of Empathy* (pp. 3–16). <https://doi.org/10.7551/mitpress/9780262012973.003.0002>
- Boland, A., Cherry, G., & Dickson, R. (2017). *Doing a systematic review: A student's guide* (Second Edi). London: SAGE Publications Ltd.
- Boler, M. (1999). *Feeling power [electronic resource] : emotions and education*. New York: Routledge.
- Bošnjaković, J., & Radionov, T. (2018). Empathy: Concepts, theories and neuroscientific basis [Article]. *Alcoholism and Psychiatry Research*, 54(2), 123–150. <https://doi.org/10.20471/de..2018.54.02.04>
- Bryant, B. K. (1982). An index of empathy for children and adolescents. *Child Development*, 53(2), 413–425.

- Cam, P. (2014). Philosophy for children, values education and the inquiring society [Article]. *Educational Philosophy and Theory: Special Issue: Philosophy in Schools*, 46(11), 1203–1211. <https://doi.org/10.1080/00131857.2013.771443>
- Caprara, G. V., Barbaranelli, C., Pastorelli, C., Bandura, A., & Zimbardo, P. G. (2000). Prosocial foundations of children's academic achievement. *Psychological Science*, 11(4), 302–306. <https://doi.org/10.1177/1469787405057750>
- Cassidy, C., Marwick, H., Deeney, L., & McLean, G. (2018). Philosophy with children, self-regulation and engaged participation for children with emotional-behavioural and social communication needs. *Emotional and Behavioural Difficulties*, 23(1), 81–96. <https://doi.org/10.1080/13632752.2017.1388654>
- Chambers, D. W. (2019). Is Freire incoherent? Reconciling directiveness and dialogue in Freirean pedagogy. *Journal of Philosophy of Education*, 53(1), 21–47. <https://doi.org/10.1111/1467-9752.12340>
- Cheang, R., Gillions, A., & Sparkes, E. (2019). Do mindfulness-based interventions increase empathy and compassion in children and adolescents: A systematic review. *Journal of Child and Family Studies*, 28(7), 1765–1779. <https://doi.org/10.1007/s10826-019-01413-9>
- Chesters, S. D. (2012). *The Socratic classroom [electronic resource] : reflective thinking through collaborative inquiry*. Rotterdam ; Boston: Sense Publishers.
- Clark, A. (2010). Empathy and sympathy: Therapeutic distinctions in counseling. *Journal of Mental Health Counseling*, 32(2), 95–101. <https://doi.org/10.17744/mehc.32.2.228n116thw397504>
- Coll, M.-P., Viding, E., Rütgen, M., Silani, G., Lamm, C., Catmur, C., & Bird, G. (2017). Are we really measuring empathy? Proposal for a new measurement framework. *Neuroscience and Biobehavioral Reviews*, 83(1), 132–139. <https://doi.org/10.1016/j.neubiorev.2017.10.009>
- Dadds, M. R., Hunter, K., Hawes, D. J., Frost, A. D. J., Vassallo, S., Bunn, P., ... Masry, Y. El. (2008). A measure of cognitive and affective empathy in children using parent ratings. *Child Psychiatry and Human Development*, 39(2), 111–122. <https://doi.org/10.1007/s10578-007-0075-4>
- Damianidou, E., & Phtiaka, H. (2016). A critical pedagogy of empathy: making a better world achievable. *Pedagogies*, 11(3), 235–248. <https://doi.org/10.1080/1554480X.2016.1195741>
- Daniels, H. (2001). *Vygotsky and pedagogy*. London ; New York: Routledge/Falmer.

- Daniels, H. (2010). Vygotsky and psychology. In U. C. Goswami (Ed.), *The Wiley-Blackwell handbook of childhood cognitive development* (2nd ed., pp. 673–696). Chichester, England: Wiley-Blackwell.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, 44(1), 113–126. <https://doi.org/10.1037//0022-3514.44.1.113>
- De Rosnay, M., & Hughes, C. (2006). Conversation and theory of mind: Do children talk their way to socio-cognitive understanding? *British Journal of Developmental Psychology*, 24(1), 7–37. <https://doi.org/10.1348/026151005X82901>
- Decety, J. (2011). The neuroevolution of empathy. *Annals of the New York Academy of Sciences*, 1231(1), 35–45. <https://doi.org/10.1111/j.1749-6632.2011.06027.x>
- Decety, J., & Ickes, W. J. (2009). *The social neuroscience of empathy*. Cambridge, Mass. ; London: MIT.
- Dewey, J. (1938). *Logic : the theory of inquiry*. New York: Holt.
- Dewey, J. (1997). *How We Think*. Dover Publications.
- Dundar, Y., & Fleeman, N. (2017). Developing my search strategy. In *Doing a Systematic Review: A Student's Guide* (Second Edi). London: SAGE Publications Ltd.
- Endacott, J., & Brooks, S. (2013). An updated theoretical and practical model for promoting historical empathy. *Social Studies Research and Practice*, 8(1), 41–58.
- Endacott, J. L., & Pelekanos, C. (2015). Slaves, women, and war! Engaging middle school students in historical empathy for enduring understanding. *The Social Studies*, 106(1), 1–7. <https://doi.org/10.1080/00377996.2014.957378>
- Fair, F., Haas, L. E., Gardosik, C., Johnson, D., Price, D., & Leipnik, O. (2015). Socrates in the schools: Gains at three-year follow-up. *Journal of Philosophy in Schools*, 2(2). <https://doi.org/10.21913/jps.v2i2.1268>
- Fernández-Sánchez, M., Quintanilla, L., & Giménez-Dasí, M. (2015). Thinking emotions with two-year-old children: an educational programme to improve emotional knowledge in young preschoolers / Pensando las emociones con niños de dos años: un programa educativo para mejorar el conocimiento emocional en primer ciclo de Edu [Article]. *Cultura y Educación*, Vol. 27, pp. 802–838. <https://doi.org/10.1080/11356405.2015.1089385>
- Ferrada, D. (2020). Dialogic pedagogy linking worlds: participatory community classrooms. *Pedagogy, Culture and Society*, 28(1), 131–146. <https://doi.org/10.1080/14681366.2019.1615534>

- Feshbach, N. D., Feshbach, S., Fauvre, M., & Ballard-Campbell, M. (1984). *Learning to care: A curriculum for affective and social development*. Glenview, IL: Scott, Foresman.
- Feshbach, Norma Deitch, & Feshbach, S. (2009). Empathy and Education. In J. Decety & W. Ickes (Eds.), *The Social Neuroscience of Empathy*. <https://doi.org/10.7551/mitpress/9780262012973.001.0001>
- Fletcher, N. M. (2016). Envisioning the experience of others: Moral imagination, practical wisdom and the scope of empathy. *Philosophical Inquiry in Education*, 23(2), 141–159.
- Freire, P. (2017). *Pedagogy of the oppressed*. UK: Penguin.
- Freud, S., & Strachey, J. (1959). *Group psychology and the analysis of the ego* (Rev. ed.). London: Hogarth Press.
- Gazzard, A. (1988). Evidence of effectiveness of the philosophy for children program: Quantitative studies - 1987-1988 [Article]. *Thinking*, 7(4), 43–44. <https://doi.org/10.5840/thinking19887411>
- Giménez-Dasí, M., Quintanilla, L., & Daniel, M. F. (2013). Improving emotion comprehension and social skills in early childhood through philosophy for children. *Childhood & Philosophy*, 9(17), 63–89.
- Giménez-Dasí, Marta, Quintanilla, L., Ojeda, V., & Lucas-Molina, B. (2017). Effects of a dialogue-based program to improve emotion knowledge in Spanish Roma preschoolers. *Infants And Young Children*, 30(1), 3-16. <https://doi.org/10.1097/IYC.0000000000000086>
- Giroux, H. A. (2011). *On critical pedagogy*. London: Continuum.
- Glina, M. (2015). Exploring prosocial behavior through structured philosophical dialogue: A quantitative evaluation. *Democracy & Education*, 23(2).
- Gorard, S., & Smith, E. (2010). *Equity in education: An international comparison of pupil perspectives*. London: Palgrave Macmillan.
- Gorard, Stephen, Siddiqui, N., & See, B. H. (2017). Can ‘philosophy for children’ improve primary school attainment? *Journal of Philosophy of Education*, 51(1), 5–22. <https://doi.org/10.1111/1467-9752.12227>
- Gough, D., Oliver, S., Thomas, J., & Hobbs, A. (2013). Learning from research: Systematic reviews for informing policy decisions a quick guide. *Principal Public Health Adviser NHS Chief Scientist Office Overseas Development Institute Cabinet Office Director of Social Research & Policy*, (December), 1–36.
- Gough, D., Thomas, J., & Oliver, S. (2012). Clarifying differences between review designs and methods. *Systematic Reviews*, 1(28), 1–9. <https://doi.org/10.1186/2046-4053-1-28>

- Gregory, M. R. (2007). A framework for facilitating classroom dialogue [Article]. *Teaching Philosophy*, 30(1), 59–84. <https://doi.org/10.5840/teachphil200730141>
- Gunawan, M. S. I., Wibowo, M. E., Purwanto, E., & Sunawan, S. (2019). Group counseling of values clarification to increase middle school students' empathy. *Psicologia Educativa*, 25(2), 169–174. <https://doi.org/10.5093/psed2019a5>
- Hall, J. A., & Schwartz, R. (2019). Empathy present and future. *Journal of Social Psychology*, 159(3), 225–243. <https://doi.org/10.1080/00224545.2018.1477442>
- Hess, D. E. (2009). *Controversy in the classroom : the democratic power of discussion*. New York: Routledge.
- Hoffman, M. L. (2000). *Empathy and moral development : implications for caring and justice*. Cambridge, U.K.: Cambridge University Press.
- Hoffman, M. L. (2014). Empathy, justice, and social change. In H. L. Maibom (Ed.), *Empathy and Morality*. <https://doi.org/10.1093/acprof>
- Hogan, R. (1969). Development of an empathy scale. *Journal of Consulting and Clinical Psychology*, 33(3), 307–316. <https://doi.org/10.1037/h0027580>
- Iaosanurak, C., Chanchalor, S., & Murphy, E. (2016). Social and emotional learning around technology in a cross-cultural, elementary classroom. *Education and Information Technologies*, 21(6), 1639–1662. <https://doi.org/10.1007/s10639-015-9406-4>
- Influs, M., Masalha, S., Zagoory-Shaon, O., & Feldman, R. (2019). Dialogue intervention to youth amidst intractable conflict attenuates stress response to outgroup. *Hormones and Behavior*, 110(March), 68–76. <https://doi.org/10.1016/j.yhbeh.2019.02.013>
- Kim, I. H., Anderson, R. C., Nguyen-Jahiel, K., & Archodidou, A. (2007). Discourse patterns during children's collaborative online discussions. In *Journal of the Learning Sciences* (Vol. 16). <https://doi.org/10.1080/10508400701413419>
- King, V. (2017). *10 Keys to happier living*. London: Headline.
- Kohlberg, L. (2008). The development of children's orientations toward a moral order: I. Sequence in the development of moral thought. *Human Development*, 51(1), 8–20.
- Latawiec, B. M., Anderson, R. C., Ma, S., & Nguyen-Jahiel, K. (2016). Influence of collaborative reasoning discussions on metadiscourse in children's essays. *Text and Talk*, 36(1), 23–46. <https://doi.org/10.1515/text-2016-0002>
- Lee, J., Lee, Y., & Kim, M. H. (2018). Effects of empathy-based learning in elementary social studies. *Asia-Pacific Education Researcher*, 27(6), 509–521. <https://doi.org/10.1007/s40299-018-0413-2>
- Lipman, M. (1976). Philosophy for children [Article]. *Metaphilosophy*, Vol. 7, pp. 17–33.

- <https://doi.org/10.1111/j.1467-9973.1976.tb00616.x>
- Lipman, M. (1988). Philosophy for children and critical thinking [Article]. *Thinking*, 7(4), 40–42. <https://doi.org/10.5840/thinking19887410>
- Lipman, M. (2003). *Thinking in education* (2nd ed.). New York: Cambridge University Press.
- Maibom, H. L. (2014). Introduction: (Almost) everything you ever wanted to know about empathy. In *Empathy and Morality*. <https://doi.org/10.1093/acprof>
- Mary, L. (2014). Fostering positive peer relations in the primary classroom through circle time and co-operative games. *Education 3-13*, 42(2), 125–137. <https://doi.org/10.1080/03004279.2012.662239>
- Maxwell, B., & DesRoches, S. (2010). Empathy and social-emotional learning: Pitfalls and touchstones for school-based programs. *New Directions for Child and Adolescent Development*, 2010(129), 33–53. <https://doi.org/10.1002/cd.274>
- Mead, G. H., Morris, C. W., Huebner, D. R., & Joas, H. (2015). *Mind, self, and society* (The defini). Chicago.
- Mercer, N. (2003). The educational value of dialogic talk in whole-class dialogue - OER in Education. Retrieved June 12, 2020, from http://oer.educ.cam.ac.uk/wiki/The_educational_value_of_dialogic_talk_in_whole-class_dialogue
- Mercer, N., & Howe, C. (2012). Explaining the dialogic processes of teaching and learning: The value and potential of sociocultural theory. *Learning, Culture and Social Interaction*, 1(1), 12–21.
- Mercer, Neil. (1995). *The guided construction of knowledge : Talk amongst teachers and learners*. Clevedon, Avon, England: Multilingual Matters.
- Mercer, Neil. (2008). Talk and the development of reasoning and understanding. *Human Development*, 51(1), 90–100. <https://doi.org/10.1159/000113158>
- Miller, P. H. (2010). Piaget's theory: past, present & future. In U. C. Goswami (Ed.), *The Wiley-Blackwell handbook of childhood cognitive development* (2nd ed., pp. 649–672). Malden, MA: Wiley Blackwell.
- Mizell, K. (2015). Philosophy for children, community of enquiry, and human rights education. *Childhood & Philosophy E-ISSN*., 11(22), 319–328.
- Nelson, K. (2007). *Young minds in social worlds*. Cambridge, Mass.: Harvard University Press.
- Neumann, D. L., Chan, R. C. K., Boyle, G. J., Wang, Y., & Westbury, H. R. (2014). Measures of empathy: Self-report, behavioral, and neuroscientific approaches. In G. J. Boyle, D. H. Saklofske, & G. Matthews (Eds.), *Measures of Personality and Social Psychological*

Constructs. London: Elsevier.

- Nussbaum, M. C. (2001). *Upheavals of thought: The intelligence of emotions*. Cambridge University Press.
- Ouzzani, M., Hammady, H., Fedorowicz, Z., & Elmagarmid, A. (2016). Rayyan-a web and mobile app for systematic reviews. *Systematic Reviews*, 5(1), 1–10. <https://doi.org/10.1186/s13643-016-0384-4>
- Parker, C. (2016). Pedagogical tools for peacebuilding education: Engaging and empathizing with diverse perspectives in multicultural elementary classrooms. *Theory and Research in Social Education*, 44(1), 104–140. <https://doi.org/10.1080/00933104.2015.1100150>
- Petticrew, M., & Roberts, H. (2006). *Systematic reviews in the social sciences: a practical guide*. Malden, MA ; Oxford: Blackwell Pub.
- Piaget, J. (2013). *The moral judgment of the child*. London, England: Routledge.
- Pons, F., & Harris, P. L. (2000). *TEC: Test of emotion comprehension*. Oxford: Oxford University Press.
- Pons, Francisco, Giménez-Dasí, M., Daniel, M.-F., Auriac-Slusarczyk, E., Businaro, N., & Viana, K. (2019). Impact of a low-cost classroom dialogue-based intervention on preschool children's emotion understanding. *European Early Childhood Education Research Journal*, 27(5), 630–646. <https://doi.org/10.1080/1350293X.2019.1651961>
- Pons, Francisco, Harris, P. L., & de Rosnay, M. (2004). Emotion comprehension between 3 and 11 years: Developmental periods and hierarchical organization. *European Journal of Developmental Psychology*, 1(2), 127–152. <https://doi.org/10.1080/17405620344000022>
- Reid, C., Davis, H., Horlin, C., Anderson, M., Baughman, N., & Campbell, C. (2013). The kids' empathic development scale (KEDS): A multi-dimensional measure of empathy in primary school-aged children. *British Journal of Developmental Psychology*, 31(2), 231–256. <https://doi.org/10.1111/bjdp.12002>
- Reznitskaya, A., Anderson, R. C., McNurlen, B., Nguyen-Jahiel, K., Archodidou, A., & Kim, S. (2001). Influence of oral discussion on written argument. *Discourse Processes*, 32(2–3), 155–175. <https://doi.org/10.1080/0163853x.2001.9651596>
- Rojas-Drummond, S., & Mercer, N. (2003). Scaffolding the development of effective collaboration and learning. *International Journal of Educational Research*, 39(1–2), 99–111. [https://doi.org/10.1016/S0883-0355\(03\)00075-2](https://doi.org/10.1016/S0883-0355(03)00075-2)
- Sassen, G. (2012). Drums and poems: An intervention promoting empathic connection and literacy in children. *Journal of Creativity in Mental Health*, 7(3), 233–248. <https://doi.org/10.1080/15401383.2012.711712>

- Schertz, M. (2007). Avoiding “passive empathy” with philosophy for children. *Journal of Moral Education*, 36(2), 185–198. <https://doi.org/10.1080/03057240701325308>
- Schleifer, M., Marie-France, D., Peyronnet, E., & Lecomte, S. (2003). The impact of philosophical discussions on moral autonomy, judgment, empathy and the recognition of emotion in five year olds. *Thinking: The Journal of Philosophy for Children*, 16(4), 4–12.
- Schroeder, D. A., Graziano, W. G., Batson, C. D., Lishner, D. A., & Stocks, E. L. (2014). The empathy–altruism hypothesis. In *The Oxford Handbook of Prosocial Behavior*. <https://doi.org/10.1093/oxfordhob/9780195399813.013.023>
- Scott, P. (1998). Teacher talk and meaning making in science classrooms: A vygotskian analysis and review. *Studies in Science Education*, 32(1), 45–80. <https://doi.org/10.1080/03057269808560127>
- Sharp, A.-M. (2007). Education of the emotions in the classroom community of inquiry. *Gifted Education International*, 22(2–3), 248–257. <https://doi.org/10.1177/026142940702200315>
- Siddiqui, N., Gorard, S., & See, B. H. (2019). Can programmes like philosophy for children help schools to look beyond academic attainment? *Educational Review*, 71(2), 146–165.
- Siddiqui, Nadia, & M. Ventista, O. (2018). A review of school-based interventions for the improvement of social emotional skills and wider outcomes of education. *International Journal of Educational Research*, 90(June), 117–132. <https://doi.org/10.1016/j.ijer.2018.06.003>
- Silke, C., Brady, B., Boylan, C., & Dolan, P. (2018). Factors influencing the development of empathy and pro-social behaviour among adolescents: A systematic review. *Children and Youth Services Review*, 94(March), 421–436. <https://doi.org/10.1016/j.childyouth.2018.07.027>
- Sober, E. (1991). The logic of the empathy-altruism hypothesis. *Psychological Inquiry*, 2(2), 144–147. <https://doi.org/10.1080/10632921.2015.1103673>
- Stetson, E., Hurley, A., & Miller, G. (2003). Can universal affective education programs be used to promote empathy in elementary aged children? A review of 5 curricula. *Journal of Character Education*, 1(2), 129.
- Stinson, M. (2015). Speaking up about oracy: the contribution of drama pedagogy to enhanced oral communication. *English Teaching: Practice & Critique*, 14(3), 303–313. <https://doi.org/10.1108/etpc-07-2015-0055>
- Teding van Berkhout, E., & Malouff, J. (2016). The efficacy of empathy training: A meta-analysis of randomized controlled trials [Article]. *Journal of Counseling Psychology*,

- 63(1), 32. <https://doi.org/10.1037/cou0000093>
- Topping, K. J., & Trickey, S. (2007). Collaborative philosophical enquiry for school children: Cognitive effects at 10-12 years. *British Journal of Educational Psychology*, 77(2), 271–288. <https://doi.org/10.1348/000709906X105328>
- Topping, K.J., & Trickey, S. (2014). The role of dialog in philosophy for children [Article]. *International Journal of Educational Research*, 63, 69–78. <https://doi.org/10.1016/j.ijer.2013.01.002>
- Topping, Keith J., Trickey, S., & Cleghorn, P. (2019). *A teacher's guide to philosophy for children* (1st ed.). London: Routledge.
- Trickey, S., & Topping, K. J. (2004). “Philosophy for children”: a systematic review. *Research Papers in Education*, 19(3). <https://doi.org/10.1080/0267152042000248016>
- Trickey, S., & Topping, K. J. (2006). Collaborative philosophical enquiry for school children: Socio-emotional effects at 11 to 12 years. *School Psychology International*, 27(5), 599–614. <https://doi.org/10.1177/0143034306073417>
- Vossen, H. G. M., Piotrowski, J. T., & Valkenburg, P. M. (2015). Development of the adolescent measure of empathy and sympathy (AMES). *Personality and Individual Differences*, 74(February), 66–71. <https://doi.org/10.1016/j.paid.2014.09.040>
- Vygotsky, L. S., & Cole, M. (1978). *Mind in society: Development of higher psychological processes*. Cambridge: Harvard University Press.
- Wentzel, K. R. (1993). Does being good make the grade? Social and behavior and academic competence in middle school. *Journal of Educational Psychology*, 85(2), 357–364.
- Wertsch, J. V. (1979). From social interaction to higher psychological processes a clarification and application of Vygotsky's theory. *Human Development*, 22(1), 1–22. <https://doi.org/10.1159/000272425>
- Zembylas, M. (2013). The “crisis of pity” and the radicalization of solidarity: Toward critical pedagogies of compassion. *Educational Studies*, 49(6), 504–521. <https://doi.org/10.1080/00131946.2013.844148>
- Zembylas, M. (2018). Reinventing critical pedagogy as decolonizing pedagogy: The education of empathy. *Review of Education, Pedagogy, and Cultural Studies*, 40(5), 404–421. <https://doi.org/10.1080/10714413.2019.1570794>

Appendices

Appendix 1 – Dialogue & Empathy Outside of Educational Settings

(This section was cut from the Literature Review chapter)

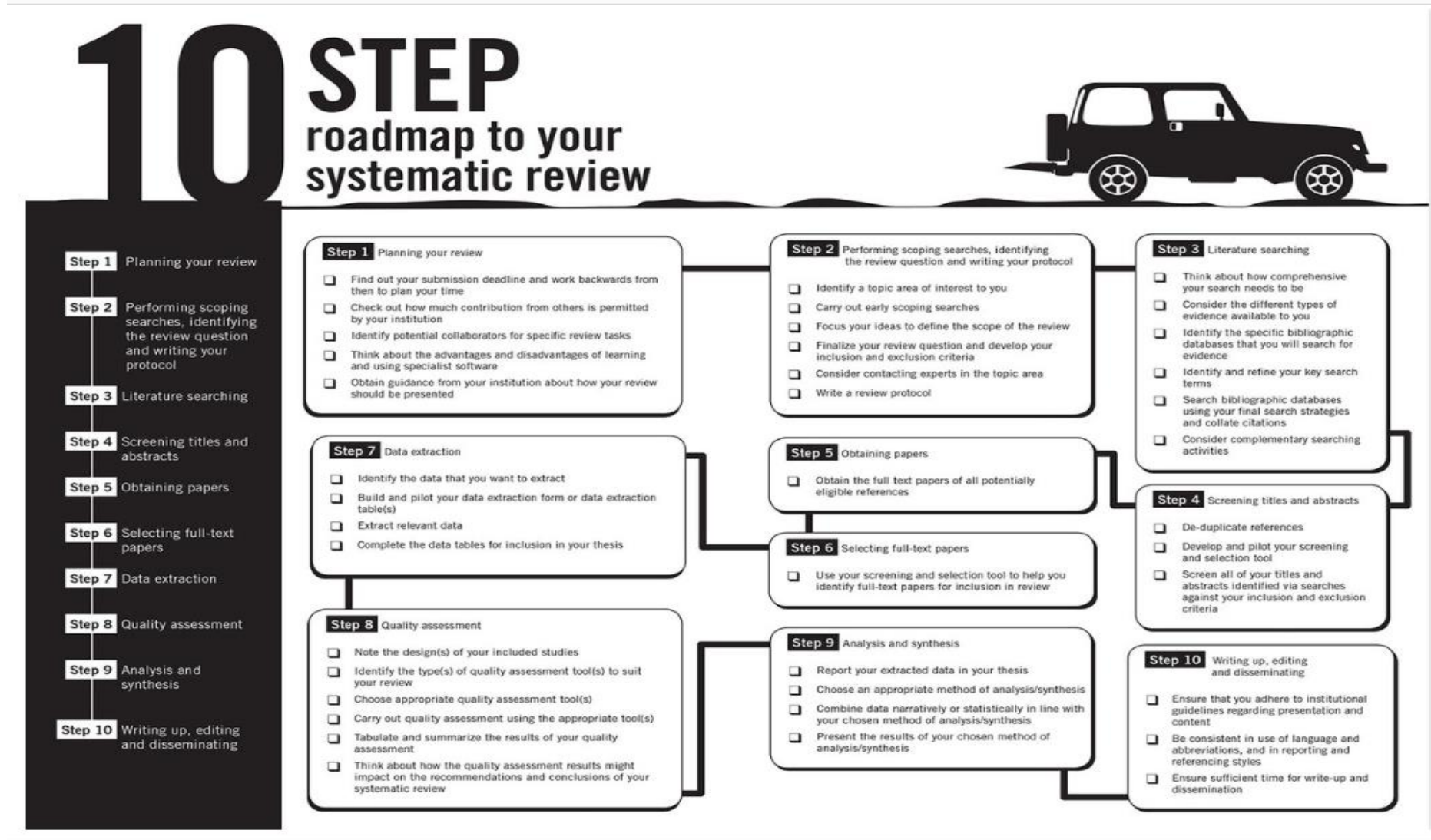
Dialogue and empathy have been associated with one another particularly in the field of counselling and therapy. It is well established within the field that clear verbal discussions will improve one's ability to empathise (Bošnjaković & Radionov, 2018; Decety & Ickes, 2009). Numerous studies suggest, in a similar conceptual fashion to De Rosnay & Hughes (2006), that conversation and verbal communication can enhance one's understanding of another's perspective and emotions (Clark, 2010; Gunawan et al., 2019; Teding van Berkhout & Malouff, 2016). This can either be from direct mediation between two individuals or through role-taking methods. The explanation and explicit description that dialogue can bring to emotional conversations can, particularly with children, enhance their understanding by removing conceptual barriers (De Rosnay & Hughes, 2006; Fernández-Sánchez et al., 2015). However, it is possible that this conversation may be difficult for some children if they have issues with linguistic competency and emotional understanding or recognition (Giménez-Dasí et al., 2017; Gunawan et al., 2019). Consequently, the mediation and scaffolding of this conversation by the therapist/counsellor, in the same way a facilitator or teacher would do in a classroom, is of vital importance when ensuring clarity in conversation (Clark, 2010; Gunawan et al., 2019).

Outside of counselling and therapy, there is little evidence to suggest a positive correlation between dialogue and empathy. However, Influx, Masalha, Zagoory-Shaon, & Feldman (2019) study is an exception to this. The study details a dialogue intervention with 88 Israeli-Jewish and Arab-Palestinian adolescents, aged 16 to 18, showcasing neurobiological and psychological statistical evidence that empathic behaviour can be stimulated and enhanced via dialogic interaction. Influx et al., (2019) use a robust quasi-experimental, Randomised Control Trial (RCT) study design, splitting the participants into a dialogue intervention group and a control group. The intervention group underwent a dialogic programme that approached and discussed the Israeli-Palestinian conflict, integrating individuals from both sides of said conflict. The researchers employed this intervention over eight weeks, videoing every sessions

for subsequent behavioural observation and measuring cortisol levels in each participant five times pre and post-intervention to measure the fluctuation in anxiety levels experienced by the participants from both groups when interacting with one another. As described by the researchers in the study, a reduction in cortisol levels when conversing with another individual signifies a decrease in anxiety and an increase in empathy (as discussed previously using the work of Decety, 2011). Influx et al., (2019) found a decrease in the anxiety of the intervention group which was further mediated by empathic responses characterised by similar clinical conceptual elements to those discussed by Coll et al., (2017) and Decety (2011), driven by emotional recognition and response. These results, made more reliable by the study's methodologically rigorous empirical design, show a significant positive correlation between dialogic methods and empathy arousal and enhancement.

However, while Influx et al., (2019) utilises an intervention model; employs loosely educational methods and shows this positive correlation, one cannot conclusive claim that these dialogic methods will do the same in a classroom. Particularly if that classroom is not made up of two groups of older adolescents from diametrically opposed socio-cultural groups and the subject matter is not exclusively discussing a topic all parties involved have experiential knowledge of. Furthermore, Influx et al.,'s (2019) study, successful as it may seem, is only one study and therefore, cannot irrefutably provide evidence for the positive relationship between dialogue and empathy in every domain and environment. Although, it does improve the theoretical conceptions when constructing hypotheses and studies that may test this relationship in the future.

Appendix 2 - Practical Guidelines Summary (Boland, Cherry, & Dickson, 2017, p.xx)(specific information and content found in Boland, Cherry, & Dickson, 2017, but diagram summarises procedures followed)



Appendix 3 - Search Strategies

Search 1		
<i>Database</i>	<i>Search String</i>	<i>Time Period</i>
ERIC	(ab.) dialog* OR “classroom dialog*” OR “dialogic* enquiry” OR “dialogic* inquiry” OR “systematic inquiry” OR dialogism OR “critical pedagogy” OR “critical dialogue” OR “philosophy for children” OR “classroom dialogue” OR “critical thinking” OR “questioning” OR “reflective learning” OR “dialogical framework” OR “collaborative enquiry” OR “interactive dialogue” OR “classroom talk” OR “collaborative learning” OR “dialog* teaching” AND (ab.) empath* OR “affective empathy” OR “cognitive empathy” OR sympathy OR compassion OR altruism OR “pro-social behaviour” OR “pro-social behavior” OR “prosocial behaviour” OR “prosocial behavior” OR “empathy-based learning”	Not Specified
BEI	(ab.) dialog* OR “classroom dialog*” OR “dialogic* enquiry” OR “dialogic* inquiry” OR “systematic inquiry” OR dialogism OR “critical pedagogy” OR “critical dialogue” OR “philosophy for children” OR “classroom dialogue” OR “critical thinking” OR “questioning” OR “reflective learning” OR “dialogical framework” OR “collaborative enquiry” OR “interactive dialogue” OR “classroom talk” OR “collaborative learning” OR “dialog* teaching” AND (ab.) empath* OR “affective empathy” OR “cognitive empathy” OR sympathy OR compassion OR altruism OR “pro-social behaviour” OR “pro-social behavior” OR “prosocial behaviour” OR “prosocial behavior” OR “empathy-based learning”	Not Specified
PsycINFO	(ab.) dialog* AND (ab.) dialog*	Not Specified
Search 2		
ERIC		2000 - 2020

	(ab.) dialog* OR “classroom dialog*” OR “dialogic* enquiry” OR “dialogic* inquiry” OR “systematic inquiry” 2000 - 2020 OR dialogism OR “critical pedagogy” OR “critical dialogue” OR “philosophy for children” OR “classroom dialogue” OR “critical thinking” OR “questioning” OR “reflective learning” OR “dialogical framework” OR “collaborative enquiry” OR “interactive dialogue” OR “classroom talk” OR “collaborative learning” OR “dialog* teaching” AND (ab.) empath* OR “affective empathy” OR “cognitive empathy” OR sympathy OR compassion OR altruism OR “pro-social behaviour” OR “pro-social behavior” OR “prosocial behaviour” OR “prosocial behavior” OR “empathy-based learning”	
BEI	(ab.) dialog* OR “classroom dialog*” OR “dialogic* enquiry” OR “dialogic* inquiry” OR “systematic inquiry” 2000 - 2020 OR dialogism OR “critical pedagogy” OR “critical dialogue” OR “philosophy for children” OR “classroom dialogue” OR “critical thinking” OR “questioning” OR “reflective learning” OR “dialogical framework” OR “collaborative enquiry” OR “interactive dialogue” OR “classroom talk” OR “collaborative learning” OR “dialog* teaching” AND (ab.) empath* OR “affective empathy” OR “cognitive empathy” OR sympathy OR compassion OR altruism OR “pro-social behaviour” OR “pro-social behavior” OR “prosocial behaviour” OR “prosocial behavior” OR “empathy-based learning”	
PsycINFO	(ab.) dialog* AND (ab.) empath*	2000 - 2020
Search 3		
ERIC	(ab.) dialog* OR “classroom dialog*” OR “dialogic* enquiry” OR “dialogic* inquiry” OR “systematic inquiry” 2000 - 2020 OR dialogism OR “critical pedagogy” OR “critical dialogue” OR “philosophy for children” OR “classroom dialogue” OR “critical thinking” OR “questioning” OR “reflective learning” OR “dialogical framework” OR “collaborative enquiry” OR “interactive dialogue” OR “classroom talk” OR “collaborative learning” OR “dialog* teaching” AND (ab.) empath* OR “affective empathy” OR “cognitive empathy” OR sympathy OR compassion	

	OR altruism OR “pro-social behaviour” OR “pro-social behavior” OR “prosocial behaviour” OR “prosocial behavior” OR “empathy-based learning”	
BEI	(af.) dialog* OR “classroom dialog*” OR “dialogic* enquiry” OR “dialogic* inquiry” OR “systematic inquiry” OR dialogism OR “critical pedagogy” OR “critical dialogue” OR “philosophy for children” OR “classroom dialogue” OR “critical thinking” OR “questioning” OR “reflective learning” OR “dialogical framework” OR “collaborative enquiry” OR “interactive dialogue” OR “classroom talk” OR “collaborative learning” OR “dialog* teaching” AND (af.) empath* OR “affective empathy” OR “cognitive empathy” OR sympathy OR compassion OR altruism OR “pro-social behaviour” OR “pro-social behavior” OR “prosocial behaviour” OR “prosocial behavior” OR “empathy-based learning”	2000 - 2020
PsycINFO	(ab.) dialog* AND (af.) empath* NOT nursing OR nurse OR medical OR medicine	2000 - 2020

Appendix 4 - Excluded Search Strings

<i>Term/Construct</i>	<i>Potential String</i>	<i>Reason for Exclusion</i>
Pedagogy	(af.) pedagog* OR “pedagogical practices” OR “teaching methods” OR “teaching practices” OR “study and teaching” OR “thought and thinking”	Prohibited studies that took place outside of schools.
Study Design	(ab.) qualitative OR intervention OR “intervention stud*” OR quantitative OR correlat* OR “classroom-based intervention” OR “classroom-based stud*”	Decreased the overall number of papers retrieved from search.
School/Age Band	(ab.) “primary school” OR “elementary school” OR “middle school” OR “Key Stage 2”	Limited studies that took place outside of schools, i.e. volunteer participants, recruited outside of school.

Appendix 5 - Search History Example (from Final Rayyan search)

(Example of 60 papers (10%) identified in the final study using Rayyan – 59 excluded, 1 included)

Title	Y	Journal	V	I	P	Authors	I
	e		o	s	a		n
	a		l	s	g		c
	r		u	u	e		/
			m	e	s		E
			e				x
Editorial: Madness and creativity-Yes, no or maybe?	2015	Frontiers in Psychology	6			Abraham, Anna and Abraham, Bilder, De Souza, Dietrich, Fink, Fisher, Forgeard, Jung, Kaufman, Kaufman, Lindell, Maslow, Power, Ramey, Simonton, Takeuchi, Zabelina	e x c
Making Meaning of Work: Uncovering the Complexity of Immigrant Experience in a Multicultural Landscape	2011	Multicultural Perspectives	13	4	20	Abramova, Inna	e x c
Breaking Organizational Silence: Speaking Out for Human Rights in NAEA	2010	Art Education	70	4	38-	Acuff, Joni Boyd and Spillane, Sunny and Wolfgang, Courtne N	e x c

	1			4			
	7			0			
Review of The Bi-Personal	2	Journal of the	3	2	4	Adams, Paul and Bion, Guntnp	e
Field: Experiences in Child	0	American	1		1		x
Analysis.	0	Academy of			1-		c
	3	Psychoanalysis			4		
					1		
					4		
Review of Narrative methods	2	Narrative	1	2	4	Adams, Ron	e
for the human sciences.	0	Inquiry	8		1		x
	0				5-		c
	8				4		
					1		
					8		
Compassionate Care: Student	2	Nurse	1	3	1	Adamson, Elizabeth and Dewar, Belinda	e
nurses' learning through	0	Education in	5		5		x
reflection and the use of story	1	Practice			5-		c
	5				1		
					6		
					1		

Can virtue be learned? An exploration of student learning experiences in ethics courses and their implications for influencing moral character.	2	Teaching	2	3	2	Agnew Cochran, Elizabeth and Fozard Weaver, Darlene	e
	0	Theology &	0		4		x
	1	Religion			3-		c
	7				2		
					5		
					6		
The story of an African-American teacher-scholar: a woman's narrative	1	International	1	1	6	Ah Nee-Benham, Maenette K.P. and Dudley, Jacquilyn and Maenette	e
	9	Journal of	0		3-	K.P. Ah Nee-Benham and Jacquilyn Dudley	x
	9	Qualitative			8		c
	7	Studies in			3		
		Education (QSE)					
The cognitive bases of anthropomorphism: From relatedness to empathy.	2	International	7	1	1	Airenti, Gabriella and Airenti, Arbib, Bateson, Behne, Braten, Buhler,	e
	0	Journal of			1	Campos, Chella, Damasio, De Vignemont, Decety, Duffy, Feinman,	x
	1	Social			7-	Gallese, Gazzola, Gee, Gergely, Gergely, Gray, Hamlin, Hamlin,	c
	5	Robotics			1	Harnad, Harris, Jackson, Kahn, Kaplan, Lamm, Lillard, Meltzoff,	
					2	Mori, Murray, Murray, Murray, Nadel, Pfeifer, Piaget, Piaget, Piaget,	
					7	Piwek, Premack, Premack, Premack, Reddy, Rizzolatti, Samuels,	
						Saygin, Scassellati, Searle, Searle, Searle, Searle, Singer, Singer,	
						Singer, Spelke, Stephan, Thompson, Tinwell, Trevarthen, Trevarthen,	
						Waytz, Weizenbaum, Wellman, Woodward, Woolley, Ziemke	

Examining the nature and effects of feedback dialogue.	2	Assessment &	4	7	1	Ajjawi, Rola and Boud, David	e
	0	Evaluation in	3		1		x
	1	Higher			0		c
	8	Education			6-		
					1		
					1		
					1		
					9		
Dialogue in a learning process: problematization of gender and gender equality in higher education.	2	Reflective	1	4	4	Albinsson, Gunilla and Arnesson, Kerstin	e
	0	Practice	8		7		x
	1				4-		c
	7				4		
					9		
					5		
The classroom as "toponymic workspace": towards a critical pedagogy of campus place renaming.	2	Journal of	4	1	1	Alderman, Derek H. and Reuben, Rose-Redwood	e
	0	Geography in	4		2		x
	2	Higher			4-		c
	0	Education			1		
					4		
					1		

Experiencing aging or	2	BMC Medical	1			Alessandra Lamas Granero Lucchetti and Lucchetti, Giancarlo and	e
demystifying myths? - impact of	0	Education	7			Isabella Noceli de Oliveira and Moreira-Almeida, Alexander and	x
different "geriatrics and	1					Oscarina da Silva Ezequiel	c
gerontology" teaching strategies	7						
in first year medical students							
Self-development as a spiritual	2	Pastoral	5	1	5	Alma, Hans A and Alma, Alma, Greene, Hermans, Smaling, Strien,	e
process: The role of empathy	0	Psychology	7		9-	Taylor	x
and imagination in finding	0				6		c
spiritual orientation.	8				3		
The meaning of empathy and	2	International	1	4	1	Alma, Hans A and Smaling, Adri and Alma, Alvesson, Barnes, Bohart,	e
imagination in health care and	0	Journal of			9	Bru, Csikszentmihalyi, Dewey, Dewey, Dilthey, Duyndam, Eisenberg,	x
health studies.	0	Qualitative			5-	Fay, Gadamer, Gadamer, Gallese, Gendlin, Giddens, Gorden, Greene,	c
	6	Studies on			2	Harris, Hempel, Hoofdakker, Husserl, Josselson, Kearney, Kohut,	
		Health and			1	Kvale, Kogler, Merleau-Ponty, Merleau-Ponty, Murdoch, Nagel,	
		Well-being			1	Nickles, Palmer, Popper, Ramachandran, Ricoeur, Rizzolatti, Rogers,	
						Rogers, Rogers, Rubin, Rudner, Ryan, Schachtel, Schleiermacher,	
						Schutz, Schutz, Seale, Silverman, Smaling, Smaling, Smaling,	
						Smaling, Stein, Tronto, van Strien, van Tilburg, Weber, Weber, Winch	
Teaching Literature in an Age of	2	Journal of	5	3	1	Alsup, Janet	e
Text Complexity	0	Adolescent &	7		8		x
		Adult Literacy			1-		c

	1				1		
	3				8		
					4		
Teaching Literature in an Age of	2	Journal of	5	3	1	Alsup, Janet	e
Text Complexity	0	Adolescent &	7		8		x
	1	Adult Literacy			1		c
	3						
Literature and the Human	2	Journal of	3	1	2	Altman, Julie Cooper and Schaffner Goldberg, Gertrude and Quiros,	e
Condition in Teaching and	0	Teaching in	7		0-	Laura	x
Learning	1	Social Work			3		c
	7				5		
Biyoloji Öğretmen	2	Bartın	6	3	9	Altuntaş, Esra Akırlar and Yilmaz, Miraş and Turan, Salih	e
Adayların Sosyal	0	Üniversitesi			1	Levent	x
Bir Konudaki Eleştiriler	1	Eğitim			5-		c
Dönüşümün Empati	7	Fakültesi			9		
Araştırmasından Öncelenmesi		Dergisi			3		
					1		
The EU and the Recycling of	2	Educational	4	9	1	Aman, Robert	e
Colonialism: Formation of	0	Philosophy	4		0		x
Europeans through Intercultural	1	and Theory			1		c
Dialogue	2				0-		

					1			
					0			
					2			
					3			
The EU and the Recycling of	2	Educational	4	9	1	AMAN, ROBERT		e
Colonialism: Formation of	0	Philosophy	4		0			x
Europeans through intercultural	1	and Theory			1			c
dialogue	2				0-			
					1			
					0			
					2			
					3			
Empathy and Critical Thinking:	2	Journal of	1	1	6	Ampuero, David and Miranda, Christian E. and Delgado, Luisa E. and	i	
Primary Students Solving Local	0	Adventure	5		4-	Goyen, Samantha and Weaver, Sean	n	
Environmental Problems	1	Education and			7		c	
through Outdoor Learning	5	Outdoor			8			
		Learning						
Museums and the Educational	2	Journal of	4	2	0	Andermann, Jens and Simine, Silke Arnold-de	e	
Turn: History, Memory,	0	Educational			1-		x	
Inclusivity	1	Media,			Ju		c	
	2				1			

		Memory, and Society					
Promoting multicultural literacies through game-based embodiment: a case study of counselor education students and the role-playing game Oblivion	2 0 1 6	On the Horizon	2 4	1 4	4 4- 5 4	Anderton, Cindy L and King, Elizabeth M	e x c
Dreaming as a primordial state of the mind: The clinical relevance of structural faults in the body ego as revealed in dreaming.	2 0 0 7	The International Journal of Psychoanalysis	8 8	1 5	5 5- 7 4	Andrade, Victor Manoel and Andrade, Bion, Bion, Bion, Brierley, Crick, Fonagy, Freud, Freud, Freud, Freud, Freud, Freud, Freud, Freud, Freud, Hartmann, Hobson, Hofer, Kohut, Kohut, Llinas, Masson, Pegna, Schore, Spitz, Teicher, Winnicott, Winnicott, Winson	e x c
Mindfulness-Based Design Practice (MBDP): A Novel Learning Framework in Support of Designers within Twenty-First-Century Higher Education	2 0 1 9	International Journal of Art & Design Education	3 8	4 8	8 8 7- 9 0 1	Andrahennadi, Kumanga Chanduni	e x c

The use of early recollections as a narrative aid in psychotherapy.	2	Counselling	2	3	3	Androutsopoulou, Athena and Adler, Androutsopoulou,	e
	0	Psychology	6		1	Androutsopoulou, Androutsopoulou, Androutsopoulou,	x
	1	Quarterly			3-	Androutsopoulou, Androutsopoulou, Andzouladou, Angus, Beaudon,	c
	3				3	Bruhn, Bruner, Burnell, Butler, Byng-Hall, Chafe, Clark, Cozolino,	
					2	Dallos, Eakin, Edwards, Efran, Fowler, Fowler, Fowler, Freud,	
					9	Gergen, Gergen, Gibert, Gilbert, Hackman, Hermans, Hermans,	
						Hester, Holmes, Irons, Josselson, Lieblich, Luborsky, Mayaman,	
						Mayman, McLeod, McLeod, McNamee, Miller, Monteagudo, Mosak,	
						Nelson, Omer, Omer, Osatuke, Papp, Parry, Penn, Penn, Penn,	
						Pennebaker, Pennebaker, Pillemer, Pillemer, Pinsker-Aspen,	
						Polkinghorne, Sarbin, Singer, Sluzki, Smorti, Stiles, Thorne, White,	
						Woolf, Zimmerman	
Caring as an important foundation in coaching for social sustainability: A case study of a successful Swedish coach in high-performance sport.	2	Reflective	1	1	2	Annerstedt, Claes and Lindgren, Eva-Carin and Annerstedt, Bassey,	e
	0	Practice	5		7-	Bergmann Drewe, Bourdieu, Boyatzis, Buber, Cassidy, Collins,	x
	1				3	Creswell, Culver, Cushion, Cote, Erickson, Gordon, Gould, Gould,	c
	4				9	Hardman, Johansson, Jones, Jones, Jones, Jones, Jones, Kirk, Koning,	
						Kvale, Lawson, Lindsey, Lyle, Lyle, Mallett, Nelson, Neuman,	
						Noddings, Noddings, Potrac, Smith, Sparkes, Stake, Standal, Wals,	
						Wilcox, Yin	

Long-Term Effects of Bullying:	2	English	1	6	8	Ansbach, Jennifer	e
Promoting Empathy with	0	Journal	0		7-		x
Nonfiction	1		1		9		c
	2				2		
Determination of the Empathy	2	Acta	9	3	8	ÅœtkÅ¼r, Nur	e
Levels of Prospective	0	Educationis			9-		x
Classroom Teachers: An	1	Generalis			1		c
Example of the Life Skills	9				0		
Teaching Course					4		
Response to Favareau and	2	Journal of the	5	3	8	Aragno, Anna	e
Gallese.	0	American	6		0		x
	0	Psychoanalytic			3		c
	8	Association					
Gender Discourse in an Arab-	2	Journal of	1	3	2	Arar, Khalid	e
Muslim High School in Israel:	0	Educational	5		8		x
Ethnographic Case Study	1	Change			1-		c
	4				3		
					0		
					1		

Turning Points in the Lives of	2	Gender and	2	4	4	Arar, Khalid Husny and Abu-Rabia-Queder, Sarab	e
Two Pioneer Arab Women	0	Education	3		1		x
Principals in Israel	1				5-		c
	1				4		
					2		
					9		
Teacher empathy and science	2	Eurasia	9	2	8	Arghode, Vishal and Yalvac, Bugrahan and Liew, Jeffrey and Barr,	e
education: A collective case	0	Journal of			9-	Bauman, Birch, Bransford, Brunei, Conboy, Cooper, Costu, Creswell,	x
study.	1	Mathematics,			9	Davis, Demetriou, Durlak, Eisenberg, Eisenberg, Elliot, Glaser,	c
	3	Science &			9	Harskamp, Hoffman, Kilmc, Kyriacou, Ladd, Lam, Lave, Liew, Liew,	
		Technology				Micari, Oliver, Palincsar, Pianta, Ritchie, Selman, Shulman, Stake,	
		Education				Teich, Telia, Tettegah, Wenger, Zeyer	
Is HRD in need of an ethics of	2	Human	2	3	2	Armitage, Andrew	e
care?	0	Resource	1		1		x
	1	Development			2-		c
	8	International			2		
					3		
					1		
The dark side: The poetics of	2	Advances in	1	3	3	Armitage, Andrew and Adler, Armitage, Armitage, Armstrong, Austin,	e
toxic leadership.	0	Developing	7		7	Bochner, Brady, Carson, Darmer, Deetz, Denzin, Ellis, Ellis, Ellis,	x
					6-	Faulkner, Flynn, Freire, George, Goldman, Goleman, Grisoni,	c

	1	Human	3			Groysberg, Hartnett, Hiley, Kellerman, Langer, Leggo, Lipman-	
	5	Resources	9			Blumen, Montero, Morgan, Morris, Neider, Pace, Prendergast, Price,	
			0			Richardson, Roebuck, Spry, Stewart, White, Windle, Zander	
Designing Instructional	2	Journal of	3	4	4	Astleitner, Hermann and Leutner, Detlev	e
Technology from an Emotional	0	Research on	2		9		x
Perspective	0	Computing in			7-		c
	0	Education			5		
					1		
					0		
Jewish Values, Empathy, and	2	Society	5	5	4	Astrow, Alan B	e
the Doctor-Patient Relationship	0		2		1		x
	1				8-		c
	5				4		
					2		
					3		
Promotion of Participation and	2	Irish	3	3	3	Baraldi, Claudio and Rossi, Elisa	e
Mediation in Multicultural	0	Educational	0		8		x
Classrooms	1	Studies			3-		c
	1				4		
					0		
					1		

I forgive you, but you must die:	2	Victims &	1	3	2	Barrile, Leo G and Amick-McMullan, Amick-McMullan, Armour,	e
Murder victim family members,	0	Offenders	0		3	Armour, Armour, Barrile, Barrile, Barrile, Baumeister, Dominus,	x
the death penalty, and	1				9-	Enright, Fox, Goffman, Gross, Janoff-Bulman, Karp, Lauritzen,	c
restorative justice.	5				2	Madeira, McCullough, McCullough, Pepinsky, Quinney, Quinney,	
					6	Scott, Sharp, Slone, Strelan, Szmania, Takada, Tilly, Tilly, Umbreit,	
					9	Umbreit, Unnever, Wenzel, Zimring	
Beyond the language given: The	2	Cerebral	2	1	2	Basnakova, Jana and Weber, Kirsten and Petersson, Karl Magnus and	e
neural correlates of inferring	0	Cortex	4	0	5	van Berkum, Jos and Hagoort, Peter AI - ORCID:	x
speaker meaning.	1				7	http://orcid.org/Petersson , Karl Magnus; ORCID:	c
	4				2-	http://orcid.org/0000-0002-8245-0392 and Amodio, Berntson, Binder,	
					2	Boersma, Brown, Buccino, Carrington, Dalgleish, Decety, Fan, Ferstl,	
					5	Frith, Goffman, Goldman, Goldman, Grice, Grice, Hagoort,	
					7	Holtgraves, Iacoboni, Iacoboni, Kuperberg, Levinson, Lombardo, Mar,	
					8	Mar, Mashal, Mason, Mason, Menenti, Mitchell, Oostdijk, Picard,	
						Pickering, Price, Pulvermuller, Rizzolatti, Rizzolatti, Ruby, Saxe,	
						Saxe, Saxe, Saxe, Saxe, Saxe, Saxe, Schippers, Singer, Sperber,	
						Wilson, Xu	
Navigating the tides of change:	2	Studies in	3	3	2	Bastrup-Birk, Henriette and Wildemeersch, Danny	e
revisiting the notion of	0	Continuing	3		1		x
reflexivity in the context of	1	Education			9		c
social learning for	1						

transboundary collective

experimentation

Navigating the Tides of Change:	2	Studies in	3	3	2	Bastrup-Birk, Henriette and Wildemeersch, Danny	e
Revisiting the Notion of	0	Continuing	3		1		x
Reflexivity in the Context of	1	Education			9-		c
Social Learning for	1				2		
Transboundary Collective					3		
Experimentation					4		
Design thinking: Opportunities	2	Nurse	6		1	Beaird, Genevieve and Geist, Melissa and Lewis, Erica J	e
for application in nursing	0	Education	4		1		x
education	1	Today			5		c
	8						
The World Needs Students with	2	Issues in	3	2	6	Bear, Ashley and Skorton, David	e
Interdisciplinary Education	0	Science and	5		0-		x
	1	Technology			6		c
	9				2		
When Does an Academic	2	Journal of	4	2	6	Beautyman, Wendy and Shenton, Andrew K.	e
Information Need Stimulate a	0	Librarianship	1		7-		x
School-Inspired Information	0	and			8		c
Want?	9	Information			0		
		Science					

Neoliberal Globalisation,	2	Educational	8	1	M	Beckmann, Andrea and Cooper, Charlie	e
Managerialism and Higher	0	Policy			a		x
Education in England:	1	Analysis and			y-		c
Challenging the Imposed "Order	3	Strategic			2		
of Things"		Research			4		
Performance appraisal-cultural	2	Education,	1	1	3	Behery, Mohamed H and Paton, Robert A	e
fit: organizational outcomes	0	Business and			4-		x
within the UAE	0	Society:			4		c
	8	Contemporary			9		
		Middle Eastern					
		Issues					
Negotiation of gender	2	Transcultural	5	3	4	Bellinger, Goli Amin and Accordino, Accordino, Brown, Chang,	e
responsibilities in resettled	0	Psychiatry	0		5	Chuang, Crosby, Decety, Espin, Franz, Ginsberg, Griffin, Guerney,	x
refugee populations through	1				5-	Guerney, Guerney, Guerney, Guerney, Guerney, Guerney, Guerney,	c
relationship enhancement	3				4	Guerney, Guerney, Jamil, Krulfeld, Love, McLean, Mishne, Nghe,	
training.					7	Ooms, Potocky-Tripodi, Rehman, Scuka, Shechter, Snyder, Stosny,	
					1	Ting-Toomey, Waldo, Williams	
Between Person and Person:	2	Academy of	1	2	2	Berkovich, Izhak	e
Dialogical Pedagogy in	0	Management	3		4		x
Authentic Leadership	1	Learning &			5		c
Development	4	Education					

The Art of Empathy: A Mixed	2	International	1	1	Ja	Bertling, Joy G.	e
Methods Case Study of a	0	Journal of	6	3	n-		x
Critical Place-Based Art	1	Education &			2		c
Education Program	5	the Arts			7		
Visual Arts Education: Teaching	2	Art Education	6	2	0	Bickley-Green, Cynthia	e
a Peaceful Response to Bullying	0		0		6-		x
	0				D		c
	7				ec		
The sound-hand.	2	Journal of	3	3	2	Bisagni, Francesco and Alvarez, Astor, Bion, Bisagni, Bisagni,	e
	0	Child	5		2	Bisagni, Bisagni, Cambray, Colman, Colman, Fordham, Fordham,	x
	0	Psychotherapy			9-	Gallese, Gallese, Gallese, Haag, Hogenson, Jung, Knox, Knox,	c
	9				2	Maiello, Maiello, Meltzer, Stern, Trevarthen, Tsay, Tustin, Tustin,	
					4	Urban, Urban, Vezzoli, Wilkinson	
					9		
CULTIVATING A SPIRIT	2	Religious	1	2	1	Bischoff, Claire and Mullino Moore, Mary Elizabeth	e
FOR JUSTICE AND PEACE:	0	Education	0		5		x
TEACHING THROUGH	0		2		1-		c
ORAL HISTORY	7				1		
					7		
					1		

Hero or has-been: Is there a	2	Advances in	1	3	3	Bishop, Jeffrey P and Rees, Charlotte E	e
future for altruism in medical	0	Health	2		9		x
education?	0	Sciences			1-		c
	7	Education			3		
					9		
					9		
Teaching the Monster:	2	College	3	3	1	Bissonette, Melissa Bloom	e
Frankenstein and Critical	0	Literature	7		0		x
Thinking	1				6-		c
	0				0		
					—		
					9		
Social media, empathy and	2	Social Work	3	2	2	Blakemore, Tamara and Agllias, Kylie	e
interpersonal skills: social work	0	Education	9		0		x
students' reflections in the	2				0-		c
digital era.	0				2		
					1		
					3		
Deconstructing the Tower of	2	International	2	2	3	Blanco, Teresa and LÃ³pez-ForniÃ©s, Ignacio and Zarazaga-Soria,	e
Babel: a design method to	0	Journal of	7		0	Francisco	x
improve empathy and teamwork		Technology &			7-		c

competences of informatics	1	Design		3		
students.	7	Education		2		
				8		
Students Learning from	2	Advances in	1	1	8	Bleakley, Alan and Bligh, John
Patients: Let's Get Real in	0	Health	3		9-	
Medical Education	0	Sciences			1	
	8	Education			0	
					7	

Appendix 6 - Ineligible Included Papers

Systematic Searches		
<i>Bibliographic Details</i>	<i>Reason(s) for Initial Inclusion</i>	<i>Reason(s) for Subsequent Exclusion</i>
Crooks, C. V., Scott, K. L., Broll, R., Zwarych, S., Hughes, R., & Wolfe, D. A. (2015). Does an evidence-based healthy relationships program for 9th graders show similar effects for 7th and 8th graders? Results from 57 schools randomized to intervention. <i>Health Education Research</i> , 30(3), 513–519. https://doi.org/10.1093/her/cyv014	Inclusion of dialogue-based practices and interpersonal relationships, alludes to empathy.	Incorrect age-band
Ferrada, D. (2020). Dialogic pedagogy linking worlds: participatory community classrooms. <i>Pedagogy, Culture and Society</i> , 28(1), 131–146. https://doi.org/10.1080/14681366.2019.1615534	Reports the use critical and dialogic pedagogy on a Chilean classrooms' sense of community, referring to empathy conceptions similar to Nussbaum (2001).	Qualitative synthesis of specific programme to Chile. Empathy not explicitly mentioned.
Lysaker, J., & Sedberry, T. (2015). <i>Literacy reading difference: Picture book retellings of race and culture</i> . 49(2), 105–111. https://doi.org/10.1111/lit.12055	Retelling stories occurs verbally, therefore, may be construed as dialogue. Emotive topics may lead to empathy-related outcome measures.	Retellings did not involve back and forth, therefore, not dialogue, just speech.

Maine, F. (2013). How children talk together to make meaning from texts: A dialogic perspective on reading comprehension strategies. <i>Literacy</i> , 47(3), 150–156. https://doi.org/10.1111/lit.12010	Dialogic reading comprehension and use of dialogic pedagogy and empathic thinking described in abstract and introduction.	Empathy only used as a tool for increased reading comprehension.
Stetson, E., Hurley, A., & Miller, G. (2003). Can Universal Affective Education Programs Be Used to Promote Empathy in Elementary Aged Children? A Review of 5 Curricula. <i>Journal of Character Education</i> , 1(2), 129.	Interactive, social programmes being used to promote empathy.	Dialogue is not explicitly used as a pedagogical method/operationalised. Communication described. Review design also means there is no tangible and new data.

Systematic Hand Searches

Kaplan, H., & Assor, A. (2012). Enhancing autonomy-supportive I-Thou dialogue in schools: Conceptualization and socio-emotional effects of an intervention program. <i>Social Psychology of Education</i> , 15(2), 251–269. https://doi.org/10.1007/s11218-012-9178-2	Using Buber’s dialogic perspective to explore the socio-emotional effects of children (may include empathy).	Measures focus on introspective socio-emotional effects not introspective therefore, empathy not included.
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Lindley, E. (2012). Inclusive dialogue: The way forward in anti-stigma mental health education? <i>Journal of Public Mental Health</i> , 11(2), 77–87. https://doi.org/10.1108/17465721211236426	Implementing dialogic programmes with children to increase empathic concern for those with mental health issues.	Incorrect age band.
Mizell, K. (2015). Philosophy for Children, Community of Enquiry, and Human Rights Education. <i>Childhood & Philosophy E-ISSN</i> :, 11(22), 319–328.	Discussion of P4C as a means to educate children in their own and others rights, relating to empathy, morality and legality.	Theoretical – no tangible evidence/data.
Nolan, C. M. (2016). Martin Buber’s I-Thou Perspective as an Alternative Approach to Antibullying Efforts. <i>Democracy & Education</i> , 24(1), 1–5.	Using Buber’s dialogic perspective when employing anti-bullying methods suggests empathy as outcome measure.	Direct response to Glina (2015). Theoretical – no tangible evidence/data.
Schertz, M. (2007). Avoiding “passive empathy” with Philosophy for Children. <i>Journal of Moral Education</i> , 36(2), 185–198. https://doi.org/10.1080/03057240701325308	Using P4C to enhance the empathic behaviours of children.	Theoretical – no tangible evidence/data.
Sharp, A.-M. (2007). Education of the Emotions in the Classroom Community of Inquiry. <i>Gifted Education International</i> , 22(2–3), 248–257. https://doi.org/10.1177/026142940702200315	Using P4C and dialogue as a means to improve sympathy and concern for others (may have been operationalised as empathy). Empathy mentioned in introduction also.	Theoretical – no tangible evidence/data.

Trickey, S., & Topping, K. J. (2006). Collaborative philosophical enquiry for school children: Socio-emotional effects at 11 to 12 years. <i>School Psychology International</i> , 27(5), 599–614. https://doi.org/10.1177/0143034306073417	Intervention using P4C to explore socio- emotional effects (may include empathy).	No inclusion or measure of empathy.
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Appendix 7 – Locations of Hand Searches

Journals → ‘Democracy & Education’, ‘Journal of Moral Education’, ‘Educational Review’, ‘Journal of Philosophy of Education’, ‘Pedagogy, Culture & Society’, ‘British Journal of Educational Psychology’.

Archive → ‘The Institute for the Advancement of Philosophy for Children’

Note: Hand searches also included backward snowballing whereby articles were extracted from included papers’ reference lists.

Appendix 8 – Example Extraction Summaries – Ampuero et al., (2015)

Interpretation(s)

Bibliographic Details	Ampuero, D., Miranda, C. E., Delgado, L. E., Goyen, S., & Weaver, S. (2015). Empathy and critical thinking: primary students solving local environmental problems through outdoor learning. <i>Journal of Adventure Education and Outdoor Learning</i> , 15(1), 64–78. https://doi.org/10.1080/14729679.2013.848817
Research Question(s)	“The present study explores the outcomes of teaching empathy and critical thinking to solve environmental problems.” (abstract)
Rationale (a) Study (b) Intervention	a) see above b) “the aim of the course was to use outdoor environment lessons to develop the critical thinking and empathy domains of learning.” (p. 66). “The Delphi study of the American Psychological Association determined that critical thinking is a process divided into six different skills, and we defined how each of these skills should be conducted when considering the components of empathy.” (p. 67)
Participant Details	
Location & Country	Los Andes, Chile
Age and Grade/Year Group	“The school has two different classes in each of its eight grades, a total of 16 classes from first to eighth grade. Children are aged from 5 to 14 years.” (p. 66)
Social Stratifiers	“Students were mainly from rural families with parents working in the agricultural industry and mining, belonging to the middle and lower economic sectors” (p. 66)
Sample Size	Not reported but, interview numbers suggest 60 students and 30 teachers.
Sample	All students in the school participated (p.66)
Study Design	Qualitative, Community Based Research (CBR) - *ethnography*
Methods of Measure	CBR allowed observation (recorded using field notes & recordings), focus groups and ‘in-depth interviews’ with both students and teachers (p. 68-69)

<i>Operationalisation of Empathy</i>	"empathizing is more than just understanding or expectations, but is vicariously feeling the emotions of others, promoting communication and motivation to pro-social behaviours (Decety, 2011)" (p. 66) “Investigations suggest that there are three components to empathy: empathic concern, personal distress and perspective-taking (Davis, 1983; Hall, Davis, & Connelly, 2000; Zechmeister, Garcia, Romero, & Vas, 2004” (p. 66-67)
<i>Operationalisation of Dialogue</i>	Dialogue in the form of critical thinking and collaborative problem solving. Dialogue as the means in order to self-reflect and emotionally self-examine and perspective-take. See p. 67 for flow diagram linking with "environmental love".
<i>Dialogue Programme/Theory Adopted</i>	APA Delphi Critical Thinking Study. (1990). See p. 67 for flow diagram.
<i>Teacher/Facilitator Training Provided</i>	Delivered by the researcher (David Ampuero) and no training documented. However, it was reported that 'the community' was 'informed' about the project and told about the aims of using "outdoor environment education lessons to develop the critical thinking and empathy domains of learning" (pg. 66).
<i>Specific Pedagogical Techniques Reported</i>	“(the specifics of the Critical Thinking to Empathy Flow Diagram, p. 67) were taught explicitly and individually each week, using storytelling from real-world examples identified from environmental problems in the school (Wang & Ku, 2010). Using real examples allows students to grapple with current problems and decide what they should do or believe.” (p. 67) Life Lab - “the principal of the school allowed the professor (researcher) of the course to build a Life Lab together with the students, which was located at an old abandoned playground of 300 square metres at the back of the school.” (p. 67). “The activities also involved outings in the park, the forest, the vegetable market, the adjacent plaza

	and nursing homes” (p. 68). “The primary teaching method utilized to implement and encourage the use of thinking skills during the construction work at the Life Lab was the ‘Teachable Moments’. This is an unplanned and unexpected event inside or outside the classroom that teachers use to provide the opportunity to extend the child’s learning (Bentley, 1995). The instructor also discusses his own thought processes on the real-life problems and issues. This discussion included critical reviews of the information presented to the class, commenting on its prejudices and faults in logic (Hofreiter et al., 2007)” (p. 68)
Quality Assurances	APA assurance of the theory behind programme creation, however, none reported re instructor delivery.
Quantitative Results/Findings	N/A
Qualitative Results/Findings	3.1. The School and the Town: “The CBR triangulation shows a progressive and collective shift towards a student community more aware of personal welfare and the environment” (p.69). “Students were also increasingly concerned with keeping the school cleaner and caring for green areas” (p.69). “The triangulation of the CBR information showed that a shift in consciousness was evident to a much greater extent in the juniors from first to fourth grade” (p. 69). “... many parents reported greater environmental awareness and positive behavioural changes of the child outside school...” (p.70) 3.2. The Classroom: “The students in the first and second grades quickly understood and identified empathy, which they used to positively drive their thinking” (p. 70). Evidence in quote on p.71. “I am happy, because learning about emotion and thinking has helped me to correct my negative behaviours towards my friends and family, even nature. Now I am also using these things to advise my friends in the neighbourhood, it makes me very happy. (Male student, nine years old) (p. 71). “... the presence of small groups of students with a high level of thoughtlessness (in the older

	classes) tended to interrupt the programme's effects with their egocentric behaviours. "... (older students who had previously been defined as 'self-centred') began to gradually leave their egocentricity behind and started to defend the rights and needs of the rest of their classmates and the teacher, identifying and refuting the self-centred and socio-centric behaviours of their peers in class, often leading to a real and tense debate. 3.3. Students: "...(the students) learned to pay more attention to thinking using self-regulation... keeping an open mind and judging their own moral and emotional reactions to the topic, especially when the topic involved students' parents, friends or other loved ones" (p. 72). "Students learned how to recognize their own bias and to consider new information. This information was often already at hand, but their egocentricity and impulsiveness had not allowed them to recognize it, and to judge it according to its credibility. This shows the achievement of teaching empathy and critical thinking" (p. 72). "The ability to infer and the willingness to think critically improved significantly, especially with issues impacting the student's family and friends or topics that directly affected their own identity" (p. 73). Example given of seven-year-old boy not hitting other children anymore and wanting to listen to what they have to say to understand them better.
Conclusions	"...the results show that the adoption of an adequate educational approach for the development of both cognitive and affective skills may cause students to positively develop sustainable behaviours towards both people and the environment... the effect of the programme was more important on students between the first and fourth grades than the older grades. Although the latter showed abilities to develop empathy and critical thinking, a one-year programme may not be long enough for them to utilize what they have learned." (p. 73). "Empathy helped to guide the thinking process and the development of character in harsh environments. For the children, love was the most interesting and

	valuable topic. They highlighted this by applying the concept of environmental love to the thinking process and how it drove them to endure and continue to grow as thinkers and keep fighting to solve the various problems in their lives” (p. 74). “We conclude that by integrating empathy with the teaching of critical thinking, and at the same time practicing them throughout activities in the local environment, children apply what they learn to solve problems not only in the classroom, but also in family and community life” (p. 74)
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Appendix 9 - Future Research: Intervention Plan

Appendix 9a – Chapter 6: Further Research Continued

6.3.2 Intervention Description Although the content of the session is based around Action for Happiness, the sessions will follow theoretical guidelines inspired by a synthesis of Philosophy for Children (Gregory, 2007; Lipman, 1976), dialogic teaching (Alexander, 2017) and Critical Pedagogy (Freire, 2017) (outlined in Appendix 9b). The delivery of the sessions will be done by the classes' normal teachers but, will be augmented by the researcher and a co-producer (one who is directly involved in the Personal, Social, Health Education, PSHE, curriculum at the school) in order to control for the quality and fidelity of the teaching. This augmented quality control will form the basis for pedagogical analysis to examine how this form of teaching and lesson format impacts children during PSHE classes and their subsequent empathic behaviours via in-depth observations by the researcher.

The intervention would work with two classes from two year groups with a 'waiting-list control' design. The intervention will last for 12 weeks and, approximately, include up to 24 sessions. Two classes (one from year four and one from year five) will receive the intervention then, once this first intervention has finished, the waiting-list control groups will receive the intervention. All participating students, in both waiting-list control and intervention classes, will be assessed pre and post-intervention (i.e. after the first groups have undergone the intervention).

6.3.3 Empathy Measures As is presented in Appendix 9e, a combination of self-report tests, teacher reports, stimuli-response and behavioural observation methods will be employed (all of which are discussed in section 2.6). The timeline of these assessments follows a basic intervention design with all participating students from all four classes taking the AMES, GEM and KEDS test pre and post intervention. Beyond the end of the 12 week intervention period, qualitative observations will continue with the intervention groups so as to collect data regarding how empathic behaviours have, or have not, changed. Although a neuroscientific element to data collection would allow one to map the full journey one undertakes during empathic arousal and subsequent behavioural change, it would not be plausible to suggest that this could take place.

Once all of the quantitative and qualitative data has been gathered after the 12 weeks statistical analysis will take place. This would include effect size and regression analysis. The statistical data, as illustrated in the literature review and explicitly denoted by Siddiqui et al., (2019), is imperative to this form of research as it has been neglected previously. This data would form the backbone of the conclusions drawn from the study. The qualitative observational data would seek to contextualise and add depth to the data taken at T1 and T2. The data collected at T3 will showcase whether the intervention has had any lasting behavioural effects. This synthesis of quantitative and qualitative data across different time points seeks to add richness to the, albeit small amount of, existing data in the field of dialogue and empathy research. However, the explicitness and clarity in operationalisation and conceptualisation of empathy can set the proposed study apart by attempting to link the two phenomena from a correlational perspective. Further, the added robustness that the multiple empathy measures brings will give greater reliability to the conclusions drawn from this data.

Appendix 9b - Pedagogical Breakdown and Systematic Procedure

Practices & Theoretical Influences:

- Affective Discussions (Sharp, 2007; Siddiqui et al., 2019; Siddiqui & Ventista, 2018): ensuring that emotional conversations are not shied away from and that they are approached with openness and transparency. The facilitator's role in this scenario is to keep dialogues calm and actively encourage empathetic responses.
- Collaborative Problem-Solving (Lipman, 1988; Topping et al., 2019): creating an environment where students have to work together to solve issues or discuss difficult topics.
- Conflict Discussions (Freire, 2017; Hess, 2009; Hoffman, 2014; Influss et al., 2019; Parker, 2016): using combative and conflictual discussions to bridge understanding and enhance empathic argumentation. Facilitator's role to keep debates calm and civil.
- Criticality (Freire, 2017; Giroux, 2011): critically analysing all points expressed but, crucially, not contesting emotions or feelings, only opinions.
- Experiential Learning (Dewey, 1938, 1997): allowing the students to actively participate, move around, speak to different members of their class.
- Scaffolded Dialogue (Mercer, 2003; Mercer, 1995; Rojas-Drummond & Mercer, 2003): stimulating conversations and manufacturing situations where dialogue is simple and can flow easily. For example, giving the conversation purpose by setting an objective, or outlining the topic in detail before discussions begin.
- Socratic Questioning (Alexander, 2017; Chesters, 2012): pragmatic and reactive questioning based upon the responses given. Initially only undertaken by facilitator(s) but, broadened to whole class where possible.

Systematic Procedure (Gregory, 2007, p. 62 & 63):

Figure 1 - Stages of Dialogical Inquiry:

Stage 1 → Identify Issues Relevant to Purposes

Stage 2 → Formulate and Organize Relevant Questions

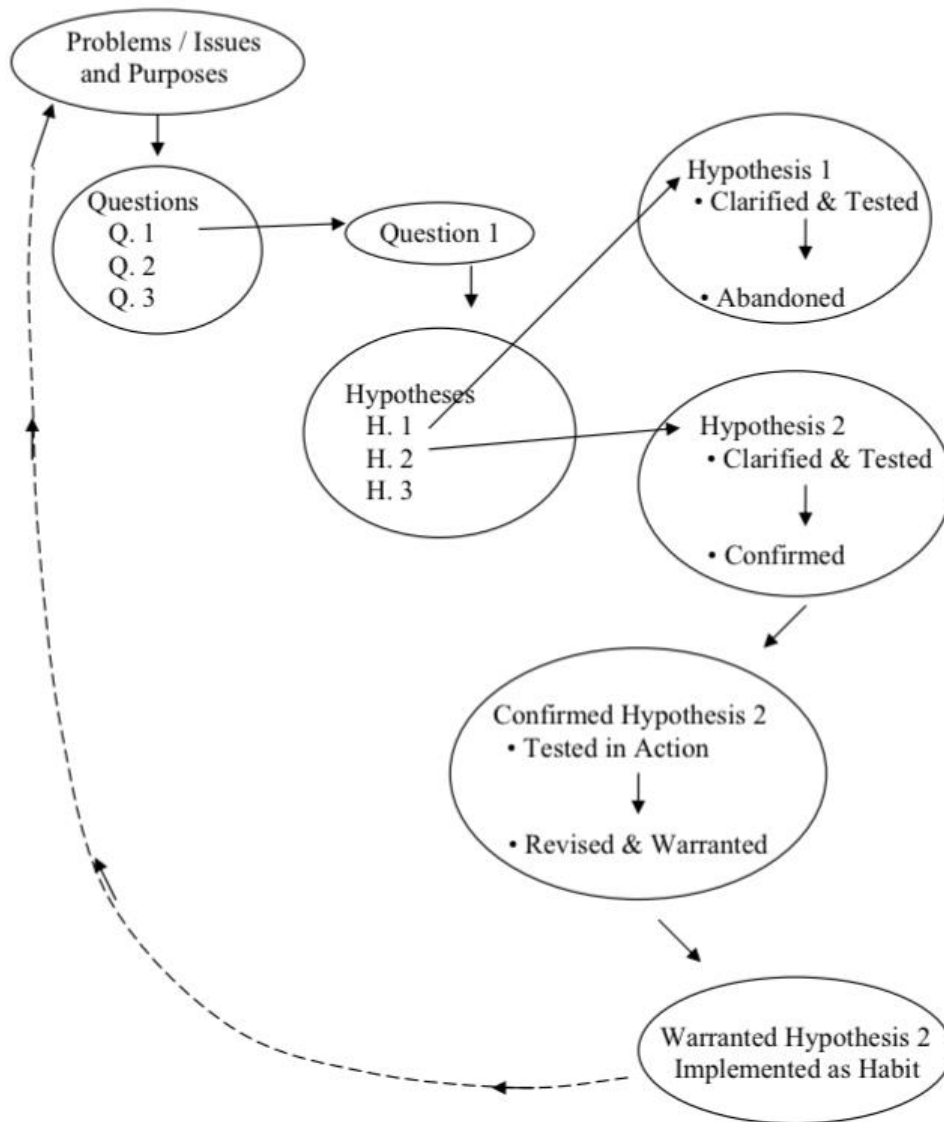
Stage 3 → Formulate and Organize Hypotheses in Response to Questions

Stage 4 → Clarify and Test Hypotheses in Dialogue and Confirm, Revise or Abandon

Stage 5 → Experiment with Hypotheses in Experience and Warrant, Revise or Abandon

Stage 6 → Implement Warranted Hypotheses

Figure 2 - Flow Diagram of Dialogical Inquire



Appendix 9c - Example Session Plan

Session Plan: 3

Session Title: Keys to Happier Living! - Exercising

Session Info and Learning Objectives:

- This session is about how exercising and how the children feel it may be used to live a happier life.
- The two main LO for this session are: firstly, to show that looking after your body and mind by exercising can help live more happily. Secondly, to try and begin to formulate an opinion about exercising and find out how others feel about it.
- This session requires pair, small group and whole class discussions to take place and seeks to get as many children discussing with one another as possible.
- Contextual knowledge and wider information about the topic are excellent for moving forward discussions therefore, any and all prior knowledge can and should be taped into.

Pre-Session Prep:

- Ensure children are partnered with someone they have not worked with before this session.
- Ensure the room layout is conducive to group discussion/conversation.

Introduction (7 - 10 mins) (Step 1):

- In pairs, discuss what you think exercising is/can be and why you might exercise? Be creative and think outside the box!
- After 5 mins (or so), come together as a class and discuss different views about exercising.
- Questions from teacher(s) should be open and focus in on why an opinion/view is held.

Hypothesising (10 - 15 mins) (Step 2, 3 & 4)

- Within pairs or small groups of multiple pairs, discuss the following quote: “Take plenty of exercise. Always be cheerful. Take all the sleep you need. You may expect to be well.” – James Freeman Clarke (1810 – 1888).

- Focusing now on what is meant by this quote.
- Further questions: when has exercising made you feel better? When have you noticed someone else feel good because of exercising? Why do you think exercise can help people feel happier?
- Ask children to write down some of these answers.
- Bring it back to the whole group and follow the same protocol as previously. Write examples down and note down good questions. *
- If there is disagreement, let it play out and manage appropriately. It is important that thoughts and emotions are shared and heard.

Experimenting (7 – 10 mins) (Stage 5)

- Ask the pairs to continue their discussions about one particularly hypothesis they, or another group, had (e.g. having a running club at school).
- Probe pairs to try and find an answer to how they might implement this hypothesis (or implement differently/better) in a school or by themselves and why they would do this.
- Once again, if there are any disagreements, this is normal and good practice. The aim is progress, not victory.

Reflection (5 mins) (Stage 6)

- Ask the children to quietly have a think with themselves or their partner about how their thoughts and feelings have changed, if at all.
- Proposition the group and see if any children want to share how and in what way this change has come about. Further question: ‘Does anyone else feel the same way?’ ‘Does anyone else feel differently?’
- Leave the children with a reminder that these discussions are about understanding and progress, and not ‘winning’ or showing off. If everyone exercised this progress driven approach and built upon each other’s ideas in the class, then everyone is better for it.

*This is solely for thoughtful and inquisitive reasons and not for the purpose of answering subsequent questions.

Appendix 9d - Example Worksheet

End of Session Worksheet

Name:

Session Title: **Keys to Happier Living - Exercising**

1a) What do you think about *exercising and how it can help you live a happier life after today's discussion?*

1b) How has today's discussion made you feel? What made you feel this way?

2a) Who was your partner for today's discussion? How did they feel about *exercising and how it can help them live a happier life after today's discussions?*

2b) Why do you think your partner feels like that? Did they say or do anything that made you think that?

Appendix 9e – Data Collection Methods, Purpose and Timeline

Table 7

Research Method, Purpose and Timeline

Method	Purpose	Time Measured/ Recorded	Participants
AMES Test (Vossen et al., 2015)	Self-report measure to assess self-perceptions of empathy (with distinctions between sympathy and cognitive and affective empathy)	T1 + T2	Y4A, Y4B, Y5A, Y5B
GEM (Dadds et al., 2008)	Teacher-reported measure to describe students' empathic behaviours towards others.	T1 + T2	Y4A, Y4B, Y5A, Y5B
KEDS (Reid et al., 2013)	Stimuli-response measure to assess students' empathic responses to pictures and situations involving empathy-stimulating scenarios.	T1 + T2	Y4A, Y4B, Y5A, Y5B
Immersive Qualitative Observations/Ethnography (similar to those adopted by Ampuero et al., (2015)	To qualitatively report on the empathic behaviours (or lack thereof) showcased by participants; to better understanding the students' justification of their actions, and to critically analyse pedagogy the teacher is enacting (using frameworks outlined in previous work of dialogic pedagogues, e.g. Alexander, 2017).	T1 + T2 + T3 + T4	Y4A, Y5A

Note: T1 – Pre-Intervention, Start of Term 1; T2 – Post-Intervention, End Term 1; T3 – Waiting Group Intervention, Whole Term 2; Y4A – Year 4 Intervention; Y4B – Year 4 Waiting; Y5A – Year 5 Intervention; Y5B – Year 5 Waiting.