INTERPLAY BETWEEN STUDENTS' LANGUAGE MINDSETS, EPISODIC MEMORY, RESILIENCE AND ACADEMIC ACHIEVEMENT IN A DISADVANTAGED MULTICULTURAL, SECONDARY SCHOOL

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MSc in Applied Linguistics for Second Language Teaching, 2024

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Dissertation submitted in part-fulfilment of the requirements for the degree of Master of Science in Applied Linguistics for Language Teaching. Trinity Term 2024

ABSTRACT

This dissertation investigates the relationship between language mindset, resilience, and past language classroom experiences, and their impact on academic outcomes in MFL (modern foreign language) learning among secondary school students in the UK. The study involved 81 Year 11 participants, using a mixed-methods approach. Surveys looked at students' language mindsets, resilience levels and episodic memories while focus groups provided feedback related to the surveys and shared deeper insights into their classroom experiences. The findings indicate a significant correlation between growth mindset, positive episodic memories and academic performance in MFL subjects. Conversely, results show a negative correlation between resilience and fixed mindset suggesting that students with low expectations and rigid beliefs achieve less. Moreover, some elements of the growth mindset appear to significantly impact attainment, whereas the fixed mindset shows no significant correlation. This research contributes to the literature by highlighting the importance of contextual language learning through positive episodic memory strategies accompanied by constructive feedback to foster a growth mindset.

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List of tables, figures and graphs

List of abbreviations and acronyms

BRS-Brief Resilience Scale

EAL- English as an Additional Language

EM-Episodic Memory

EMQ-Episodic Memory Questionnaire

EPI-Education Policy Institute

FLM-Fixed Language Mindset

FSM- Free School Meal

GLM-Growth Language Mindset

GCSE-General Certificate in Secondary Education

KS2-Key Stage 2

L1- first language or native language

L2- second language or foreign language

LMI- Language Mindset Inventory

LOTE- a Language, Other than English

MFL-Modern Foreign Language

MLS-Multilingual Language Speaker

PP- Pupil Premium (receiving free school meal)

SES-Social Economic Status

SEN-Special Educational Needs

SLA- Second Language Acquisition

INTRODUCTION

1.1. Background of study

The research explores whether there is a connection between language mindset, resilience, and past language classroom experiences, and if these factors relate to academic outcomes in foreign language learning among secondary school students in the UK. It takes into account that language learning is a lengthy and complex process requiring motivation and stamina. In this case, the required mindset, which is part of a learnt knowledge system (Poon and Koehler, 2006), is the growth mindset. This concept contributes to acquiring skills through hard work, aided by resilience, described later in this thesis. Previous empirical evidence indicates that the positive effects of growth mindsets on motivation and competence are more pronounced for disadvantaged students, such as those from low socioeconomic backgrounds or with lower initial achievement levels (Burnette et al., 2013; Paunesku et al., 2015). For these students, who face academic challenges, growth mindsets are crucial for building resilience (Paunesku et al., 2015). Consequently, fostering growth mindsets can help narrow the achievement gap between disadvantaged and advantaged students (Rattan et al., 2015). Previous research has established that fixed and growth mindset were negatively correlated and they were not a single construct (Lou and Noels, 2017;2019). This means that people have contextual mindsets which could be fixed in certain domains and incremental in other areas. Therefore, to measure language motivation, the study focused only on the language learning mindset.

The study adopted the view ‘that language mindsets are a cornerstone for meaning-making that helps people to make sense of their L2 experiences. (Lou &Noels, 2019, p.543) and that the language mindset is the learner’s lens to perceive past experiences and inform the development of affective and behavioural coping strategies. It combined for the first time, an adapted version of the Language Mindset inventory (LMI) used by Lou and Noels (2017), the Episodic Memory questionnaire, (Blair and Azaz, 2019) and the Brief Resilience Scale (Smith et al, 2008) to look at the interplay of the aforementioned constructs with academic attainment. The majority of the participants in this study differed from other studies through a unique combination of characteris-

tics: EAL (English as an additional language), low socio-economic status and teenagers. The importance of the sample mentioned here is in agreement with Lou and Noels (2019) when considering that language motivation is 'context specific '(p.539).

1.2. Aim of the study and questions

The study intended to explore, via a cross-sectional and mixed-methods design, relationship between the students' language mindsets, their resilience, their past learning experiences and attainment in modern foreign languages (MFL). Much of the non-cognitive language motivators factors haven't been researched within the context of bilingual teenagers from lower SES backgrounds.

Therefore, the questions developed for this study were:

1)To what extent, if any, there is a correlation between mindset and attainment?

2)To what extent, if any, is there a correlation between episodic memory and attainment?

Hypothesis: For those studying Urdu, this language might be perceived as more important as it holds a heritage value therefore some episodic memories might be more positive than those of students from French and Spanish.

3)To what extent, if any, is there a correlation between resilience, and attainment?

4)Is there any difference between the three languages studied?

1.3. A professional rationale for the study

While the study has a clear academic rationale in its investigation of the interplay of the language mindset, episodic memory, resilience and academic achievement, there is also a strong professional rationale which is embedded in the teaching context within which the study is set. Many studies of learner psychology in applied linguistics have been conducted on highly motivated learners, who often elect to study a language, and thus could be argued to be different from general learners.

The study took place in an average-sized secondary, state funded school in Yorkshire, in the UK. Over 56% of its students are entitled to free school meals (FSM), an indicator of low socio-economic background with more students not entitled to this benefit due to changes in immigration status, following Brexit, late arrivals in the academic year and a relatively high mobility regarding student population.

There are over 70 languages spoken in school with approximately 80% of the student population being bilingual or multilingual. More than 50% of students were born

overseas with students from more than 70 countries. The schools describe its EAL (English as an Additional Language) learners as multilingual learners to recognise that being bilingual or multilingual should be seen as an asset for our learners and identify these students using the DfES (2003) definition:

“All pupils who use or have access to more than one language at home or at school – it does not necessarily imply full fluency in both or all languages.’

There are very high levels of pupil mobility with large numbers of students leaving and joining the school throughout the school year. Many of the students join the school with little or no English or prior education or literacy in any language, so they are not just new to English but new to formal education. In addition, a significant proportion of these students have not had a full education in this country or their own country with many spending long periods out of education and having very disrupted education – the pandemic has made this even worse with many students spending long periods out of school in their country before returning to our school, especially amongst the Romanian community.

There is a much higher than average proportion of EAL students at Proficiency Levels A (new to English), B(emerging) and C (lower intermediate) compared to other schools nationally. Many students join the school from primary with very low EAL and literacy levels, in addition to those joining the school after year 7. There are far fewer students at Proficiency Level E who would be classed as fluent in English compared to other schools (Bell Foundation, 2024).

Part of the school curriculum, the students choose to study one language from French, Spanish and Urdu at KS3(age 11-12) with a significant number continuing to study it at GCSE level (15-16 years old). Out of them, Spanish is the most popular choice. Other GCSE languages are available for students whose native language(L1) is part of the qualifications available.

Access to this study context allows the researcher to explore language mindset on a relatively economically deprived, but linguistically diverse cohort of students, thus adding to the literature in important contextual and theoretical ways.

1.4. Dissertation outline

The dissertation is structured into five main chapters. The first chapter introduces the research topic, outlines the research questions, and provides an overview of the study’s importance and objectives. Chapter two reviews the relevant literature, examining existing theories and studies related to language mindset, resilience, and

foreign language learning. It also defines the main terminology used and it explains the circumstances of MFL learning in the UK from a motivational perspective. Moreover, it seeks to sieve the existing literature to give an insight into the participants' socio-economic and linguistic context. The third chapter details the research methodology, including the research design, instruments used, data collection methods, analysis techniques and the research ethical guidelines followed. Chapter four presents the findings of the study, with a comprehensive analysis of the data collected and implications. The dissertation concludes with chapter five which draws conclusions, discusses the study's limitations and offers recommendations for future research and practice on foreign language education in secondary schools.

LITERATURE REVIEW

2.1. Introduction

In this chapter I will start with explaining the need for different samples of participants, looking at the key concepts and the theories underpinning this work. I will then explain the main approach for literature review, scrutinising the existent empiric evidence and identifying any gaps in the field.

I will carry on by anchoring it into in a time frame, shifting from the main trends of the sociolinguistic field to a national and local context, focusing on the status of the modern foreign languages (MFL)in the UK and its challenges in a deprived, multilingual, socio-economic context. Lastly, I will discuss and evaluate the key terminology used in this study, linking it to the relevant literature.

2.2. Emotional regulation and language learning

Researchers know surprisingly little about the role of emotions in creating language learners' academic development and regulation of their learning. Language researchers also know little about how language learners regulate their emotions, the relationship between learners' emotions and attitudes, such as mindset, resilience with learners' academic achievement. Knowledge is even more scarce when it concerns the segment of population participating in this study, who are severely underrepresented in language learning studies (disadvantaged teenagers, mostly EAL).

The purpose of this study is to determine whether there is a relationship between noncognitive traits (resilience, and mindset-type), academic success in students with lower SES (socio-economic status) and thus fill this gap in knowledge.

The study springs out as a necessity to ensure research transferability in terms of the selected cohort and its context, as much investigation in the field of applied linguistics and self-regulation appears to have been conducted with higher education participants and in a majority of cases, their socio-economic status is not mentioned.

The aim of this cross-sectional study is thus to look at the interplay between SES, indicated by two factors (school location and pupil premium status), the affective elements of self-regulation: resilience, mindset and positive and negative language learning memories and explore their predictive relationship the academic results in MFL.

2.3 Socio-economic status and its relevance for language learning

Previous research has highlighted that social context affects students' construct of ideal self (Toutkoushian and Curtis,2010; Ushioda, 2019) alongside goals and expectations. Therefore the emotional components of self-regulation are products of socio-economic context and studies have indicated that students with higher socio-economic background have superior levels of attainment (DfE, 2023; 2019) and motivation(Lanvers,2017).The notion of 'ideal-self' is a desired projection of the learner, an image that is highly contextual and in constant interaction with the' others' and its own perceived efficacy, explained later in this section.

Even though motivation is susceptible to social context and influence (Ushioda, 2011), little research has been conducted to describe the relationship between affective factors in language learning and economic status (Kormos and Kiddle,2013; Lamb,2012, 2013). In this vein, Iwaniec (2020) called for more research on non-cognitive factors in language learning to ensure sample representativeness for students with lower socioeconomic status (SES). Some evidence is revealed from Gayton's work in Scotland (2010, 2016), who uncovered strong connections between socioeconomic background and student attitude toward modern languages. Regarding the cultural capital, so important in MFL, students from lower socioeconomic backgrounds present fewer opportunities to travel and to experience the country and the culture of the language learnt in school, therefore they might display more negative attitudes toward languages, as they envision fewer opportunities to use language skills in an instrumental way. This provides further evidence on the current British elitist trends of language learning stemming from motivational grounds.

In the case of the multilingual pupils with low level of English literacy, poverty: 'can affect access to education if families cannot provide suitable spaces for learning at home, or access to computers and the internet. Families may also be unable to afford the cost of transport to school every day, or to provide good nutrition, or the equipment required for extracurricular activities. In other cases, parents and carers may be unable to support their children's learning – not because they are reluctant to or don't value education, but because of challenges they face with their own language and literacy; their unfamiliarity with the English education system; having to look after other children; or struggling to cope with the effects of their own trauma and dislocation' (Bell Foundation, 2024, p.71).

Thus, there is a need to expand the empirical base of many studies of language mindset in the field to be inclusive of EAL pupils from economically disadvantaged contexts.

2.4. Conceptualisation of the low SES and its impact in language learning research

The operationalisation of SES in this study differs from other research in the field, where the geographical location: rural or urban indicated a clear social divide (Lamb, 2012; Kormos and Kiddle 2013 Iwaniec, 2020). These authors' work indicates that students from rural areas (more deprived areas in Poland, Chile, Indonesia) have less favourable self-beliefs than their counterparts from urban areas, where economic growth was higher. In contrast, this study looked at the socio-economic status of the students and their parents, the free meals entitlement based on parents' low income, the demographic area and postcode information, national statistics of population literacy levels and internal data on reading age, English as an additional language (EAL) status.

Fig.1 School postcode demographics www.postcodearea.co.uk

2.5. National context and Foreign Language Learning

Following the pandemic period, the rates of student disengagement have been reported to heighten resulting in wider inequality in school outcomes between disadvantaged students and their more privileged counterparts (Jones et al, 2021). For a considerable number of low- income students, the lockdown came with increasing financial and emotional hardship, daylong care for younger siblings, limited

logistical access related to space and technology. (Huffman, 2020). In addition to disadvantaged groups, the SEN (Special Education Needs) students have been seriously affected with parents reporting increased levels of anxiety and regression of behaviours and attitudes, sense of isolation from the networking and supporting community. This was more prevalent reported with autistic students who lost their routine and their specialist support (Asbury et al. 2020).

On a national scale, in 2021, the Education Policy Institute (EPI) researchers have found that not only the GCSE gaps between the underprivileged students and the affluent peers had continued to rise (1.6) but an increasing number of students had been affected by long-term poverty.

Despite making MFL (modern foreign languages) compulsory in primary and KS3 ,since 2014, and adding them to the five pillars of English Baccalaureate(Ebacc),looking at the subject's evolution as a GCSE and A-level ,Long and Danechi(2024) noted that the GCSE entries had more than halved since 2005 and schools reported more than a third less entries at A-levels in state schools .In its report about languages trends, British Council found that there was a strong correlation between free school meals and lower intake for languages at A-level. Low attaining pupils and pupils in schools with an above average FSM (Free School Meals) have been reported not to choose languages (Collen ,2020).

Some of the barriers encountered were listed as: lack of opportunity to practise the language outside of the classroom, the rise of Global English and the loss of interest for European languages in the Brexit context but more importantly, the main causes cited by a vast majority of the respondents were the course content, not always student friendly and devoid of relevance for students' experiences and lastly, the marking practice of the exam boards, perceived as 'ridiculously challenging', seeking to penalise students instead of rewarding them for what they can do (Collen, 2020).

2.6. Memory of past episodes in language learning

In the field of neuropsychology, research has shown a connection between the recollection of past experiences and current and future human attitudes (Schacter, Addis, & Buckner, 2007; Szpunar & McDermott, 2008). This has an implication on beginning to understand some of the factors influencing language learning attitudes when activated by memories. Much of the research has focused on the link between the importance of episodic memory and test performance (Pan et al, 2015) or long-term memory storage in L2 (De Masson et al, 2019).

The memory of past experiences was shown to have a strong direct effect on learning (Blair and Azaz, 2019). The self-guides are a recollection of memories related to the students' self-image and projections (Szpunar, 2010; Dörnyei,2009;2014). Nevertheless, little research has been conducted on the correlation between memory self-guides and L2 motivation with a diverse and inclusive sample of participants.

In their study, Blair and Azaz (2019) looked at the relationship between the L2 ideal self (the learner's own wishful projection of themselves),the ought-to be self(how others or society expects learner to act, behave- teachers, parents, community) and the language learning memory . Starting from the presumption that L2 motivation is spurred internally through L2 learner self-representation and externally though the L2 learning experiences (Dörnyei ,2014). the study took place in an USA university and it looked how 54 adult L2 Arabic students performed in a 68-item questionnaire. The results indicated that positive past experiences were associated with positive future self-representations and negative past experiences were correlated to negative future self-images. Past memories had a strong direct effect while self-image had an indirect effect on intended effort. The implications of this research revealed the importance of contextual language learning with practical pedagogical implications such as the use of storytelling and constructive feedback. Conversely, more longitudinal studies are required to test these findings which were collected based on recall and personal responses. Age, culture and the importance of the language studied are factors that need to be taken into consideration. Despite having an L2 language, other than English, the study has the same type of participants: adults, in higher education who display a certain level of previous academic resilience and achievement to reach in that position. In addition, the status of the language studied is not well contoured (not mentioned how many students were studying Arabic as a major for their degree) therefore the sample outlook is similar to the predominant research in the language motivation field. Therefore, there is a need for more studies to embrace diverse participant samples to better understand the link between L2 motivation, memory, mindset and behaviour.

In a longitudinal study with 8,593 teenage students, Dörnyei and Csizér (2002) looked at the language learning attitudes in a Hungarian context. Descriptive statistics indicated that positive classroom interactions and experiences with teachers had a positive impact on language learning motivation and attainment. ANOVA tests showed

significant differences in motivation scores among students with different classroom experiences ($F = 3.45$, $p < 0.01$). Using a series of Likert-scale questions, the study revealed a perceived high status of English comparing to other foreign languages such as French, German, Italian and Russian. English was rated significantly higher in terms of perceived utility and global importance compared to other languages. Chi-square tests confirmed a statistically significant motivation to learn English ($\chi^2 = 58.76$, $p < 0.001$).

2.7. Resilience

The term "resilience" originates from the Latin verb "resilire,"signifying to rebound or jump back and it is commonly defined as the ability of individuals to cope with difficulties, to bounce back, to recover and endure harsh circumstances, to prevail. From a contextual lens, resilience is viewed as a dual construct consisting in exposure to hardships and constructive adaptation to them.

Grit is defined by some as global self-efficacy encompassing persistence of effort (PE) and persistence of interest (PI) while for Riley and Masten (2005), resilience entails forms of constructive adaptation in response to hardship, requiring adaptation or recovery from substantial difficulty or risk. Hamill (2003) describes resilience as the competence in the face of significant adversity(p115) and Gilligan (2009) encompasses it as a set of tools aiding individuals in overcoming challenges.

Nevertheless, some scholars conclude that a learner with grit achieves their own goals in life, whereas someone with resilience might not have specific goals (Tang et al., 2020). This leads us to believe that resilience is an internal affective component in self-regulation. Moreover, it could be genetically inherited or more often, as a result of language interventions related to incremental intelligence or growth mindset in a context of successful learning experiences (Molway and Mutton, 2020).

Kim et al. (2019) looked at the influence of resilience on language learning motivation, demotivation, and proficiency among 367 students elementary aged 11-12 years old in South Korea. The data collected from questionnaires were analyzed using factor analysis and structural equation modelling (SEM). The results reveal that resilience consists of five components:

1. **Metacognitive Adaptation**: the ability to adapt and bounce back
2. **Sociability**: the capacity to build and maintain positive relationships with others

3. **Optimism**: the positive outlook over situations
4. **Perseverance**: The determination to continue working towards goals despite obstacles.
5. **Communicative Efficacy**: the ability to communicate effectively

The SEM results showed that there was no significant direct influence of resilience on English proficiency (β .11, p> .05). L2 learning demotivation had a more direct influence on English proficiency (β−.30, p< .01). Resilience was a higher predictor of L2 learning motivation (β.36, p< .01) than L2 learning demotivation (β−.31, p< .01). These findings indicate that using resilience on its own as a variable, it is not enough to determine if it impacts achievement and engagement and more factors have to be considered to look at the language motivation and proficiency.

To conclude, there is a gap in the literature when measuring resilience, language learning and specific traits in participants such as age, socio-economic status and cultural background. Resilience is a significant contributor to the long and complex process of language learning as it sustains motivation and it fosters a growth mindset by using previous experiences and feedback to overcome obstacles such as anxiety, boredom, failure or the need for instant gratification.

2.8. Mindset and its relationship with resilience

Mindset is a lens through which individuals view and interpret the world around them. It encapsulates deeply ingrained beliefs about whether personal characteristics, such intelligence and aptitudes are changeable or fixed. These beliefs are difficult to pinpoint as they often alternate between consciousness and subconscious levels and the dichotomy of fixed mindsets versus growth mindsets is suggesting that they are not just simply two sides of the same coin. Pending on the context and the area of learning, individuals can navigate between contradictory concepts, embracing both entity and growth theories. The two primary types of mindsets are the growth mindset and the fixed mindset. A fixed mindset is characterised by the belief that personal characteristics such as abilities, talents are static traits that cannot be changed. Individuals with a fixed mindset tend to avoid challenges, fearing failure and when encountered, they use it as a validation reason to give up and stop trying. Hence, they may view effort as fruitless leading to a reluctance to persist in the face of difficulties. This mindset can

hinder language acquisition and personal development, as it fosters a sense of helplessness and limits the process of learning and growing. Understanding students' mindsets is crucial in educational contexts, as they profoundly influence students' attitudes toward learning and their ability to overcome obstacles. By fostering a growth mindset, educators can empower learners to embrace challenges, cultivate resilience, and maintain motivation in their pursuit of learning (Dweck, 2006). Consequently, treating language mindsets as fixed or incremental might oversimplify their complexity, obscuring important nuances, although such simplification could be justified in the demanding field of research where elusive concepts are difficult to pinpoint efficiently to be measured. In their study Lou & Noels (2017) revealed that the Language Mindset Inventory (LMI) could predict how learning goals influence the learners' responses in difficult academic and communication situations. The authors highlighted the validity of LMI with university-level language students. Using the same inventory with slight alterations, Collett and Berg (2020)'s study confirmed small correlations between self-reported attainment in Japanese university students and incremental language mindset but could not find any link between fixed mindset and attainment.

Understanding the scarcity in the motivational field related to the linguistic minority and immigrant students, Lou and Noels (2020) conducted 3 studies with 2163 university foreign students with English as a second language and found out that growth mindset positively predicts self-assessed proficiency. They also found out that newly arrived migrants, although anxious, are resilient when envisioning growth in language learning. Nevertheless, the authors recognise that the samples used were homogenous, consisting in mostly year 1 students and a more diverse sample would have increased clarity over the relationship between mindset and resilience.

These findings are mirrored by Zarrinabadi et al. (2022)'s study looking at resilience in language learning among 300 Iranian EFL learners at a state university, aged 18 to 38 years (M = 21.47, SD = 3.002). Using a self-report questionnaire, the authors measured resilience, mindsets, psychological well-being, L2 selves, and perceived competence. The data, analysed through structural equation modelling, revealed that resilience significantly predicted engagement and effort. Growth language mindsets and ideal L2 self were significant predictors of resilience, indirectly influencing engagement and well-being. While resilience significantly predicted participation (R^2 = .13), positive affect (R^2 = .15), and negative affect (R^2 = .08), it did not significantly

predict effort (R^2 = .05) and intention to continue (R^2 = .02). Further research is needed to include participants with lower language proficiency to have a more different sample of attainment and uncover the relationship between current language proficiency and resilience and not solely a predictor.

Jiang, Yue and Mantou Lou(2024) examined the relationship between growth language mindsets and perseverance mediated by L2 selves among 740 Chinese students with English as an advanced L2 language. The fact that the students came from urban (56.22%) and rural (43.78%) areas did not yield any significant results. The authors used the Language Mindset Inventory (nine items, Cronbach's α = 0.86) to measure growth language mindsets and a five-item L2-specific grit scale to assess perseverance. Results indicated that students with stronger growth mindsets showed greater perseverance, with the ideal L2 selves as serving as mediators. The results highlighted the complex motivational mechanisms involved but they could not establish a causal relationship between these variables. Future longitudinal research would investigate the causal relationships of these constructs in predicting language learning motivation. Furthermore, the study relied on self-report measures of perseverance and did not include L2 attainment. Therefore, more quantitative methods would triangulate these results while official measures of attainment would serve as a robust outcome variable.

Encompassing the perseverance of the effort, as a factor, Khajavy, MacIntyre, and Hariri (2021) explored the roles of grit and language mindset in predicting foreign language achievement among 1,178 university students enrolled in general English courses. The study aimed to understand the factor structures of grit and language mindset and determine how they relate to each other and to language achievement. Structure equation modelling was used to analyse their predictive relationship and confirmatory factor analysis validated the two-factor structures of both grit and language mindset. The results indicated a weak correlation between growth language mindset and predicted perseverance of effort (a component of grit linked to the idea that of goal setting), but did not predict consistency of interest (the internal investment). Conversely, a fixed mindset negatively predicted consistency of interest. Only, the growth language mindset showed some positive correlation with L2 achievement. These findings reveal a relatively weak relationship of these constructs, requiring the need for further research to understand their full impact on language learning success. Despite that, this empirical study uses grit and not resilience to look at achievement

and mindsets and the findings are important to tease out the complexity of the language motivational constructs and the interconnection between effort, emotional investment, engagement and mindset.

2.9. Learner motivation in MFL within the UK context

Thinking of the status of the language and its perceived importance for the language students, Dörnyei (2005) proposed considering the introduction of a two- tier approach to L2 motivation: a world -language learning based on the English global status and a non-world language learning (LOTE- Language Other than English), with a lower status in the eyes of the students (p.118). Thus, thinking of students' beliefs, it is important to acknowledge the perceived importance of language learning for students and how it is related to their goals. The conceptualization of intrinsic motivation (Dörnyei;2009a)looked at the interaction between the student's ambitions and goals in terms of language learning(ideal self) and the expectations that society and environment puts on the student(ought-to be self).Compared to the field of Global English, these concepts that look at student internal motivators have not been as extensively explored to compare the differences between the influence of the global English status on language learning motivation and learning other languages(Lanvers,2017;Ushioda, 2017). When talking about the influence of the SES, we could see that the influence of others (parents, community, society) has a direct role in learning a foreign language as an instrumental way to achieve socio-economic advantages. Therefore, the way students perceive their ideal self (Dörnyei, 2016) is related to robust goals for students with higher SES (Kormos and Kiddle 2013; Lamb 2012).

In the UK, the ping-pong national policies (Lanvers,2017) have led to insubstantial value placed on language learning in the UK and what is considered the 'ought to be self and ideal self' directly are influenced by 'the difficult subject image' projected by social media, the fear of negatively impacting whole school results. From 1994 to 2004, MFL was studied as a compulsory subject until due to poor motivation (Pachler,2007) and due to harsher marking in the exam, evidenced by at least a grade lower than other subjects (Joint Council for Qualification, 2014; Blow and Myers, 2022), MFL become optional for GCSE. Nowadays with the rise of NCLE (National Consortium of Language Excellence) led by UCL under Department of Education guidance, the new

national target is to raise MFL profile, pushing for at 90% representation in English Baccalaureate (Ebacc). In 2024, the new language hubs were elected based on their successful recruitment of languages at GCSE level to increase' social mobility' and create significant advantage for students (Nick Gibbs, Education Minister 2022). This focus on narrowing the gap between the disadvantaged students and their affluent peers comes into contradiction with Lanvers(2017) and Tinsley(2018)'s findings revealing that schools with FSM(free school meals)cohorts were twice less likely to recruit students for GCSE in MFL. Therefore, most of new hubs come from a privileged socio-economic context attracting government funding and reinforcing the accepted platitude: the rich become richer.

In Modern Foreign Languages (MFL) research strategic interventions by Macaro and Erler (2008) and Graham and Macaro (2008) report positive attitudes towards language learning. In 2015, Macaro, Graham and Woore, launched a research-based approach to pedagogy and curriculum in MFL which emphasised the importance of 'comprehension strategies as a core of process-focused approach '(p.62). The authors aimed to develop' strategic readers and listeners who continually monitored and evaluated their comprehension and adapted their strategies to self-regulate. In this vein, the authors emphasised the importance of retraining learners about success and failure of the task to ensure a successful relation between their linguistic competence and their strategic behaviour. This approach stemmed from Weiner's (1992) theory of attributions which linked the learner's attribution of failure or success and predicting their behaviour and approach to the task. This is particularly important as it impacts on a student's strategic attitude and view of the task, increasing motivation, engagement, and resilience.

2.10. Literature review conclusion

To sum up, the literature review explored the intricate context in which the foreign language learning beliefs, behaviours and past experiences shape academic outcomes for teenagers. Furthermore, the overall evidence highlighted the critical role of linguistic and environmental factors in the field of motivational language learning. By admitting the complex nature of language learning motivation, this chapter pinpointed existent research looking at the role of the mindset, the importance of past classroom language learning memories and the role of resilience. It also established that there is a scarcity of language motivation studies including a diversity of contexts

with the current literature being flooded by higher education, highly motivated participants.

In this section, I endeavoured to contextualise the present study, to scrutinise the existent literature in order to foster new avenues for an empirical investigation within a specific context of UK secondary schools. The overall goal was to contribute to a more inclusive body of literature that could inform the development of relevant and practical language learning strategies and interventions

METHODOLOGY

The following chapter will detail and justify the purpose of this study, the methodological approach used to tailor the proposed questions, stemmed from the scrutinised gaps in the literature review together with practical needs identified in the academic context pertaining to the participants and the researcher.

This chapter presents in detail the methodology prescribed in this study, including its design, procedure and limitations. In addition, the rationale for the design, the sample population, the tasks, and the ethical guidelines are presented. In sum, it combined established questionnaires from Lou and Noels (2017)'s study and Blair and Azaz (2019) and Smith et al' (2008)'s Brief Resilience Scale, opting for a mixed methods design consisting of both questionnaires and focus group discussions.

3.1 Research Questions

Understanding how difficult is to pinpoint students' beliefs and perceptions related to language learning, I aimed to use multiple metacognitive factors such as resilience and mindset combined with students' memories about language learning. This was followed by focus groups interviews.

1)To what extent, if any, there is a correlation between mindset and attainment?

2)To what extent, if any, is there a correlation between episodic memory and attainment?

Hypothesis: For those studying Urdu, this language might be perceived as more important as it holds a heritage value therefore some episodic memories might be more positive than those of students from French and Spanish.

3)To what extent, if any, is there a correlation between resilience, and attainment?

4)Is there any difference between the three languages studied?

The study hypothesises correlations between mindset and language learning, as well as episodic memory and language learning, but is interested to discover whether such correlations are strong enough to be positively predictive of attainment in MFL classes. It further hypothesises, for those studying Urdu, this language might be perceived as more important as it holds a heritage value, therefore some episodic memories might be more positive than those of students from French and Spanish.

3.2. Design

The design of this study was a cross-sectional survey of psychological traits of learners and its purpose was to observe the participants at a single point in time and to compare this data with attainment scores in MFL. The three questionnaires in the survey were intended to capture various attitudes and perceptions at a given moment in time. These questionnaires were followed by focus group discussions to unpick some of the choices behind the answers given, with the intention of clarifying, expanding on ideas, views, perceptions and attitudes projected in the questionnaires.

There were several reasons behind the design choice. Firstly, as I was in my last study year and working in school, this design was less costly and quicker to conduct than longitudinal studies" (Levin, 2006, p. 24). It aimed to capture the participants' views, beliefs and attitudes and perceptions at a specific point in time, allowing me, as a researcher and educator, to analyse the prevalence of outcomes or characteristics. This is in line with Creswell (2014)'s view that "cross-sectional studies offer a snapshot of a particular group at one moment in time, enabling the study of associations between variables" (p. 157).

Thirdly, as an educator and teacher it responded to my profession's inquisitive nature to explore our students' characteristics and beliefs in order to inform our practice and improve our pedagogical knowledge. This is in agreement with Portney and Watkins (2015)'s views that "cross-sectional studies are useful for describing the characteristics of a population and understanding the current status of a phenomenon" (p. 234).

Fourthly, the cross-sectional design allowed me as a researcher to examine the complex and multiple facets of motivation, beliefs and language attitudes as noted by Mann (2003) that this design allows the'' researchers to assess several outcomes and exposures at once, making them versatile tools '(p. 105).

Lastly, the benefit of lower participant attrition played an important role as Sedgewick (2014) points out that this 'can be a significant issue in longitudinal research" (p. 2).

While the advantages elaborated above were numerous, it had several drawbacks. Its limitations can affect the interpretation and generalisability of the findings. For instance, it could not pinpoint precise correlation between the factors investigated due to its observational nature and the single point in time at which data was collected. As Mann (2003) states, "one of the main limitations of cross-sectional studies is the inability to determine cause and effect relationships" (p. 55). Moreover, I was aware

that "while cross-sectional studies can identify correlations between variables, they cannot determine causation" (Cresswell, 2014, p. 159). This means that while some slight associations were identified, it was not possible to say which variable had a stronger impact or influenced the other.

Secondly, this type of design was susceptible to confounding variables, which could obscure the true relationship between the studied variables. This can be exemplified in the way the participants' attitudes and perceptions were captured without digging beneath to uncover potential cultural bias, the participants' reading age that might have influenced their attitude towards the language studied or the similarity of their home language to the language which could have unveiled an array of nuances to the responses given.

The uncertainty of revealing a true picture by this design is mirrored by Grimes and Schulz (2002) who stated that: "confounding is a significant concern in observational studies, including cross-sectional designs, where extraneous variables can influence the observed associations" (p. 50).

Lastly, to respond to an underlying issue of the cross-sectional design that "non-response bias can occur if the characteristics of non-respondents differ from those of respondents, potentially affecting the study's representativeness" (Groves et al.2009, p. 131), I aimed to offer this study to the whole year 11 cohort (15-16 years old), allowing them and their parents, to opt out freely, whenever they wanted, across any stage of the study. This ensured a valid, reliable participation without feeling the need to explain themselves.

After scrutinising all the positive and negative aspects of this research design, a mixed method approach was considered to address potential issues related to the validity of the responses given, aiming to triangulate the data collected to check its robustness and unveil underlying contributing factors to the participants' attitudes and language perceptions(Denzin,1997).Nevertheless, I was aware that the methodological triangulation does not necessarily increase the validity and the replicability of the data presented as it contradicted with the interactionist theory of fluidity and uniqueness of the context, the sample and the data captured (Denzin, 1997).

3.3 Participants

At the macro-level, the school's population ethnic makeover has been scrutinised at a national level in terms of KS2 and GCSE (General Certificate in Secondary Education) level. The reason for using the KS2 data (year 6) national data was to show the general

trend of the students' attainment point per ethnicity when students begin secondary school. These KS2 results generate, in turn, their GCSE target grades. The GCSE performance at a national level for these ethnic groups was then used to reveal their academic attainment at a macro-level.

Fig.2

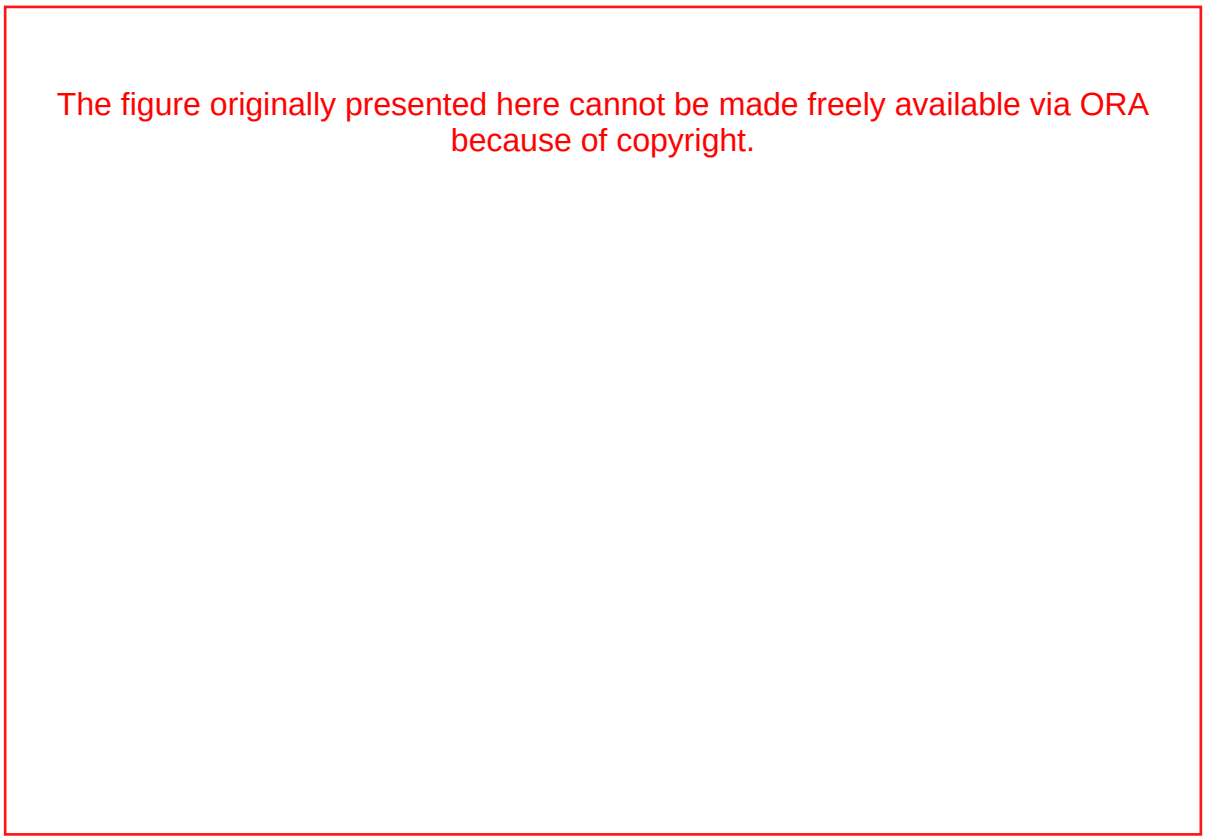
The main ethnic groups studied here were composed of Eastern European students (with the majority of them Gypsy Roma from Romania, Slovakia, Czech Republic, Hungary and Poland) more than 30%, Black and Black Caribbean, over 30%, Asian speakers (mostly Pakistani, some speaking Pashto, a local dialect), some White British and Irish Travellers and other nationalities make up the rest of the school population. As seen in the graphs, they are the most underachieving ethnic groups nationally.

Looking at the relationships between prior-attainment and ethnic groups, Strand et al. (2015)'s research indicates that children from specific language backgrounds, such as Pashto, Panjabi, Turkish, Portuguese, Czech, and Slovak, tend to have lower academic performance at Key Stage 2. Additionally, Pashto-speaking students who join later in Key Stage 4 continue to demonstrate significantly lower levels of achievement. Similarly, Roma children from Eastern European countries such as

Czech Republic, Slovakia, and Romania, as well as refugees and asylum seekers from regions such as Afghanistan, Somalia, the Democratic Republic of Congo, and Guinea Bissau, face challenges in academic attainment.

Identifying these learners solely based on ethnic data can be challenging. Therefore, recognizing key language groups associated with vulnerability, such as Somali, Pashto, and Portuguese, may aid in effectively understanding these students' needs so they can be supported.

Fig.3



This study involved the entire cohort of students studying Modern Foreign Languages (MFL) at the secondary school, totalling 131 in year 11. The questionnaires were administered by their classroom teachers under the supervision of the teacher-researcher. Unlike many studies in higher education that offer partial credit for participation, there were no incentives provided for students or teachers to take part.

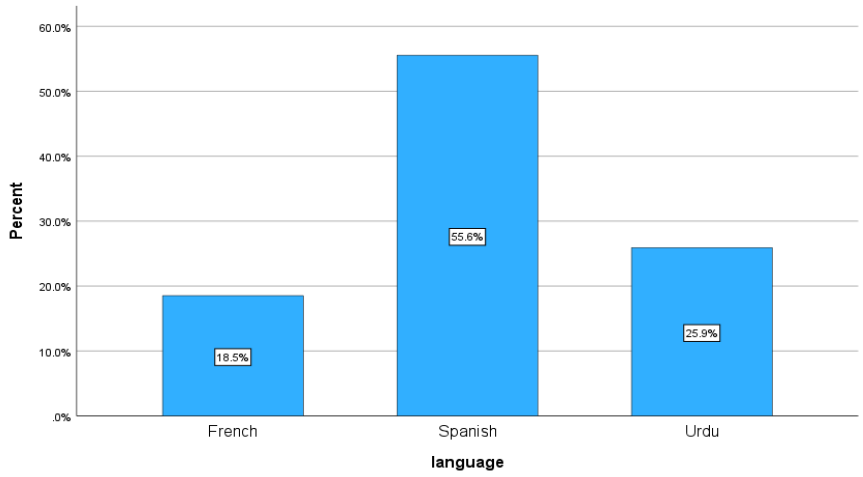
The reason for choosing this cohort was twofold. First, as a teacher-researcher, the concepts studied were measured against reliable internal data captured using national parameters (General Certificate in Secondary Education or GCSE grade boundaries).

The attainment measures here were based on two sets of mock exams marked and moderated following the national exams conventions. Second, being the eldest cohort in school, there was a higher probability that the participants had enough maturity to understand the purpose of the study and understand complex psychological factors such as resilience, language mindset, episodic memory.
For ethical reasons, their names have been changed into pseudonyms, following BERA's guidelines (2018).

Due to various factors such as student absences, some students choosing not to participate, and the commitment required from teachers to administer the questionnaire, responses were received from only a portion of the total cohort.

The cohort involved 81 participants and the gender distribution included 29 males (35.8%) and 52 females (64.2%). The graph below (fig. 4) illustrates the number of students within each cohort. Spanish was the most popular language and had the highest number for participants, with 55.6% of the students studying it. Participants studying Urdu came in the second place 25.9% despite having a smaller cohort than the GCSE French students. French had the least participants, among the three languages, with 18.5% of the sample, choosing to participate in this study.

Figure 4



These participants were selected from Year 11, based on the availability of reliable attainment data from their national assessments (GCSE mock exams). This allowed for an examination of potential relationships between academic performance, language mindset, resilience, and episodic memory in language learning.

This phase was followed by two selected focus groups (5 students each, all aged 16, mixed ability, males and female). The purpose of these focus groups was to discuss

their perception on the questionnaires, the role of the concepts measured: the role of resilience, mindset, failure, affective self-regulation factors, relationships with teachers, the significance of language learning, any relevant episodic memories or suggestions for the teacher-investigator.

The researcher taught only two groups of participants studying Spanish while the other four groups were taught by three other teachers so a trusting relationship was present before the initiation of this study. As it was late in the academic year, all students in the focus groups were 16 years old.

3.4. Researcher positionality

Ontologically speaking, the researcher was very embedded in the research context, and my positionality was intertwined within the study both as a teacher, and as a former learner of foreign languages as an L2 (second language) speaker. My own history mirrored the social group presented due to shared socio-economic and linguistic past experiences. As a student, in my youth, I experienced socio-economic hardship and had encountered failure and success in my linguistic journey. Therefore, this study was conducted 'from the heart' (Denzin, 2016, p.422).

Nevertheless, the study had at its heart, a 'value-laden axiology- conducting research that benefits people (Kivunja and Kuyini, 2017) seeking to add a transformative lens by aiming to spur reflection and dynamism in the learning process. In this case, the intent was to understand participants' perceptions on language learning motivators to better understand the relationship between mindset, resilience and past experiences through their eyes while giving them a 'voice' in the SLA field.

The transformative lens implied a trusting relationship between the participants and the researcher (Mertens, 2007) and dialogical relationship (Romm, 2015) ensured through focus groups and observations.

In my quest, as a researcher, I remained aware about the difficulty to convey an ' Impartial reality', understanding the existence of multiple realities and understanding that 'objectivity cannot escape some subjective roots" (Cohen et al, 2018). For the questionnaire component of the study, I was able to create critical distance from my own positionality and the interpretation of the data. However, my positionality may implicitly influence my interpretations of the qualitative data. Therefore, my forefront aim, as a researcher, was to ensure transparency within the study to support the validation of the findings disseminated here and allow replicability in similar conditions.

3.5. Research timeline

The table below (fig. 5) presents in detail the data collection process with deadlines and stages, strictly adhering to research's ethical considerations regarding freedom to withdraw, confidentiality, anonymity, safeguarding of the participants, safe data collection and storage in line with BERA (2018)'s requirements.

Fig. 5 Data collection process

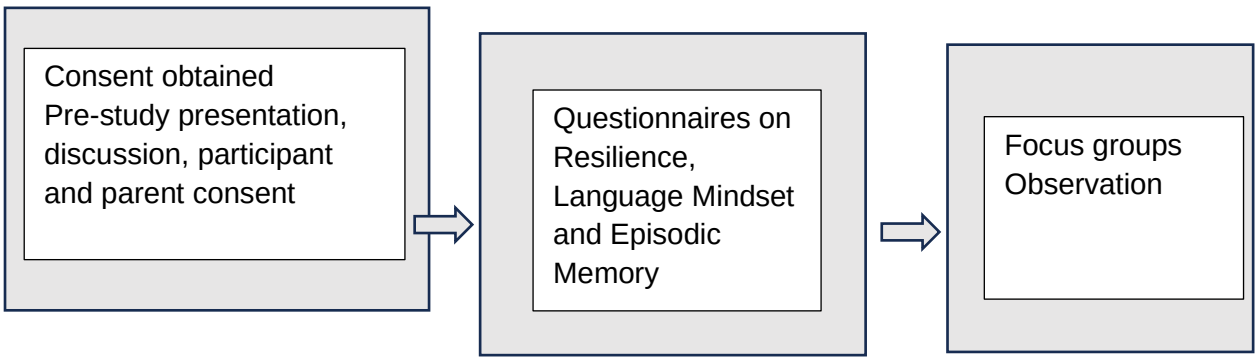
Data collection process			
Stages of research	**Methods**	**Time**	**Teacher-researcher's input**
Ethical stage of pre-collection and post research design stage (what, how, when)	Formal consents from gatekeepers, participants Information about research University Approval Teacher researcher to liaise with teachers, students explain the role of research and hand in the information letter and consent form. Allow time for students to ask questions and for parents to opt out if they deemed necessary	April Beginning of May	Ethical approval process Meetings discussions and correspondence with gatekeepers, participants, Stakeholders Informal Discussions Ongoing ethical considerations: confidentiality, anonymity safeguarding, awareness of teacher-researcher's positionality, safe data collection and storage
Questionnaires	Discussion with classroom teachers	May	
	Researcher	May	
Focus group 1	Recruitment and discussion	Beginning of June	
Focus group 2	Recruitment and discussion	Beginning of June	

3.6 Data collection methods

The reliability of each scale or questionnaire was tested in this study was included in the **Methodology** section of this research paper.

Methods used

(Figure 6 - methodological tools used in the study)



3.7. The use of questionnaires

All three questionnaires (appendix B) had a scale Likert as an ‘’ undoubtedly the most frequently used attitude scale in the social sciences and applied linguistics. Due to the fact that piloting the questionnaire is a crucial step in ensuring that the items function as intended and that the instrument has satisfactory reliability and validity." (Dörnyei, 20023, p.63) instruments already tested have been used in this study with the Brief Resilience Scale used in its authentic version.

3.7.1 The Brief Resilience Scale (BRS)

The Brief Resilience Scale (BRS) consists of six items designed to measure an individual's ability to recover from stress. Respondents rate each item on a 5-point Likert scale. The BRS measures an individual's ability to bounce back from difficult situations using six items rated on a 5-point Likert scale. Previous studies report Cronbach's alpha values between 0.83 and 0.85(Fung 2020; Smith 2008). In the field of applied linguistics, the Brief Resilience Scale (BRS) has been utilised to measure resilience, although specific studies within this field are relatively limited. In the current study, the BRS showed a Cronbach's Alpha score of 0.734.

Fig.7

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.734	.739	6

Item Statistics

	Mean	Std. Deviation	N
resilience1	3.3293	1.03106	82
resilience2	3.3171	1.00466	82
resilience3	3.2195	1.14422	82
resilience4	3.3659	.94949	82
resilience5	3.1463	1.05552	82
resilience6	3.2683	1.11165	82

Using the Brief Resilience Scale (BRS) in a new context where English as an Additional Language (EAL) and disadvantaged teenage pupils are the participants involved several considerations.

The BRS is short and straightforward, consisting of only six items, making it less burdensome for participants to complete. For teenage participants the BRS's brevity and ease of understanding (Smith et al., 2008) was major factor when choosing this instrument. The BRS specifically measures resilience, defined as the ability to bounce back from stress, which is particularly relevant for disadvantaged EAL pupils who may face numerous challenges. A further benefit is that it has been validated in various populations, demonstrating good reliability and validity, which supports its use in new contexts.

Conversely, despite its brevity, the language of the BRS might still pose challenges for EAL students who may not fully understand the nuances of the items. For instance, some EAL students might have misinterpreted some items due to language barriers, leading to inaccurate responses and skewed results (Smith et al., 2008).

Furthermore**,** the types of stressors faced by disadvantaged EAL students may differ significantly from those of the populations in which the BRS was originally validated. In this direction, the scale might have not been able to fully capture the unique resilience factors relevant to EAL students dealing with issues like cultural adjustment, discrimination, or language barriers.

In conclusion, the BRS measures resilience as the ability to bounce back from difficult situations but does not capture other aspects of resilience, such as sustained perseverance or long-term coping strategies. Disadvantaged students may exhibit resilience in other ways that are not adequately assessed by the BRS, potentially missing a comprehensive understanding of their coping mechanisms. Nevertheless, the BSL in a new context involving EAL, disadvantaged teenage pupils offers the advantages of simplicity, a specific focus on resilience, established reliability, and diagnostic utility.

The average item mean is 3.274, with a small range of 0.220, indicating consistent item responses. The variance is low (0.007), which further indicates that responses are clustered around the mean.

The reliability analysis of the resilience variables indicates acceptable internal consistency, with a Cronbach's Alpha of 0.734. The inter-item correlations suggest moderate to low relationships between items, which is typical in psychological scales where different items measure slightly different aspects of a broader construct.

The scale has acceptable reliability and the items have similar means, indicating consistent responses across different items. However, some items show lower inter-item correlations, which might suggest that they are not as strongly related to the overall construct of resilience as other items. Overall, the resilience scale appears to be a reliable measure, but there may be room for improvement by reviewing or refining items with lower inter-item correlations.

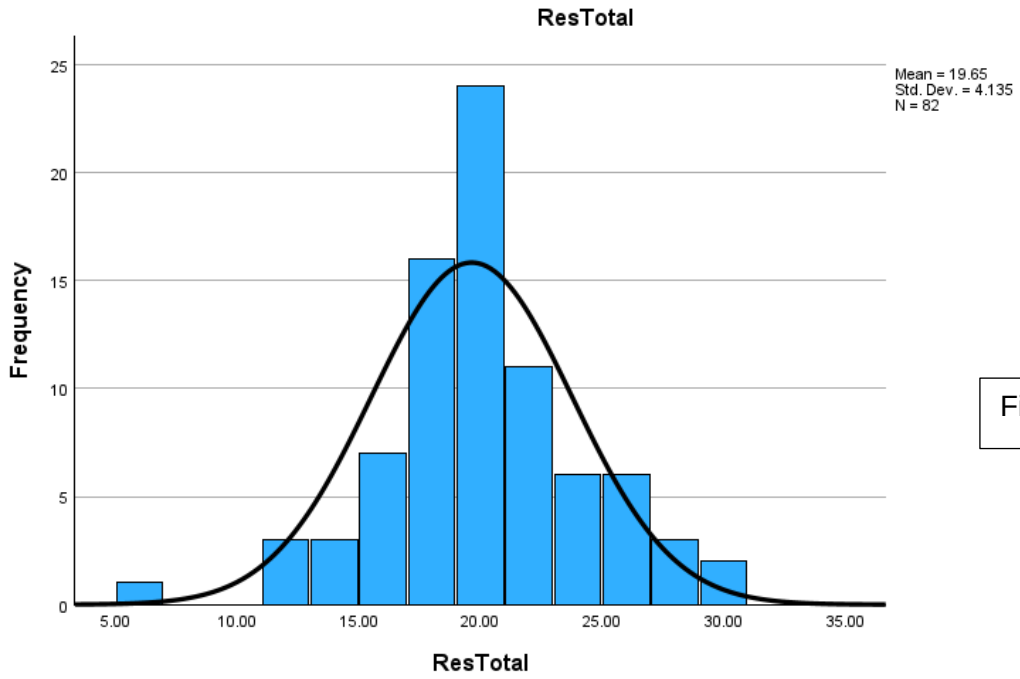


Fig.8

The histogram for resilience scale shows that resilience scores are approximately normally distributed, with a mean of 19.65 and a standard deviation of 4.135. The distribution is fairly symmetrical, indicating that the resilience scores are spread evenly around the mean. The sample size of 82 is adequate for reliable analysis. This distribution suggests that most individuals have resilience scores close to the mean, with moderate variability. The normality of the distribution supports the use of parametric methods for further analysis and comparison of resilience scores.

3.7.2 Language Mindset Inventory

The Language Mindset Inventory was the only instrument that was modified due to its length and irrelevance with some items related to age importance. The instrument used in this study was an adaptation of the already used and tested inventory of Lou and Noels (2017) which incorporated the dual structure of language mindset: growth mindset (GM) and fixed mindset (FM).

The instructions for this inventory in the initial study associated high language intelligence with the ability to understand and use well spoken and written language and correlates of high language intelligence with high competence of ‘reading, writing and telling stories (2017, p.25) something that it is not typical for all the participants in this study due to many languages spoken outside of English and the MFL studied in school.

The rationale behind choosing this inventory is that it combines aptitude beliefs(FM; It is difficult to change how good you are at foreign languages/GM: How good I am in a foreign language, will always improve , if I work hard), age sensitivity beliefs (Everyone could well in a foreign language if they try hard, whether they are young or old) and general language beliefs(FM; I have a certain amount of intelligence and I can't really do too much to change it).

The inventory was adapted to fit the participants age and their EAL status, with too many questions around ability and age removed as students at this age are not complexed too much about language learning and age. This was based on classroom discussions with students which took place before the questionnaire administration.

The pronoun 'you' was changed into 'I' to ensure more engagement and personal investment from participants. You could be confused with 'the pack mentality 'or could make reference to you' as a group'.

The six-question item multiplied with three (General Language Aptitude Beliefs, Second Language Aptitude Beliefs and Age Sensitivity Beliefs related to Language Learning were reduced to 14 questions (7 for GM and 7 for FM). Nevertheless, despite adaptations, rendering them more concise, a minority of students complained about the scale here being a bit confusing. Those with a lower English level were identified as struggling and extra explanations and one to one clarification were provided for them to render these questionnaires accessible.

Evaluating the decision to use an adapted version and splitting it into fixed and growth mindset factors involves considering various advantages and disadvantages.

Splitting the LMI into fixed and growth mindset factors allowed for more precise measurement of these distinct constructs. Distinguishing between fixed and growth mindsets can lead to clearer, more interpretable research findings .Studies investigating the impact of mindset on language learning outcomes could accurately attribute results to specific mindset orientations, leading to stronger conclusions and recommendations (Lou & Noels, 2017).Nevertheless, an adapted version that divided the mindsets into two distinct categories had the potential of oversimplify the continuum of beliefs that individuals hold, potentially missing out on the nuances of intermediate or mixed mindsets. Some students might hold both fixed and growth mindset beliefs simultaneously, and a strict dichotomy might not accurately capture this complexity. In addition**,** adapting the original LMI affected its validity and reliability, requiring extensive testing which

was not possible in this study, to ensure the adapted version accurately measured the intended concepts. The adapted version would require further validation studies to confirm that it reliably distinguished between fixed and growth mindsets in various language learning contexts.

As a researcher, I had to acknowledge that fixed and growth mindsets could vary across cultures and contexts, and an adapted version might not account for these differences. In this vein, beliefs about language learning might be influenced by cultural attitudes towards education and intelligence, which an adapted LMI might not fully capture without proper contextual adjustments. The decision to use an adapted version of the LMI and split it into fixed and growth mindset factors had clear advantages in terms of specificity, diagnostic capability, and research clarity. However, it also came with challenges related to a lower reliability scale, questions over potential oversimplification, adaptation issues, and cultural sensitivity. These factors need a careful weighing to ensure that new adapted version is rigorously tested for validity and reliability in their specific context. Hence these results need further testing and validation. By iteratively refining the scale based on these analyses, its reliability and validity can be improved for future use in assessing language mindsets effectively.

Reliability Growth Mindset Language Inventory

Reliability

Scale: Growth Language Mindset Inventory

Case Processing Summary

		N	%
Cases	Valid	80	96.4
	Excluded[a]	3	3.6
	Total	83	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.819	.821	7

Item Statistics

	Mean	Std. Deviation	N
GLM10	4.0875	1.20331	80
GLM11	3.8250	1.11122	80
GLM12	3.9500	1.16814	80
GLM13	4.0000	1.16923	80
GLM14	4.6500	1.25385	80
GLM15	4.4125	1.32831	80
GLM16	4.3375	1.34017	80

Fig.8

80 out of 83 questionnaires were completed and valid implying a high data completeness rate (96.4%). Cronbach's Alpha values of 0.819 (raw) and 0.821 (standardized) indicate good internal consistency reliability. This suggests that the items in the Growth Mindset Language Inventory are measuring the same underlying construct effectively.

All items have means ranging from 3.825 to 4.650, suggesting that respondents, on average, tend to agree with the statements presented by these items.

In summary, the Growth Mindset Language Inventory shows promising reliability based on the provided statistics, making it a suitable tool for assessing attitudes and beliefs related to growth mindset language in various contexts.

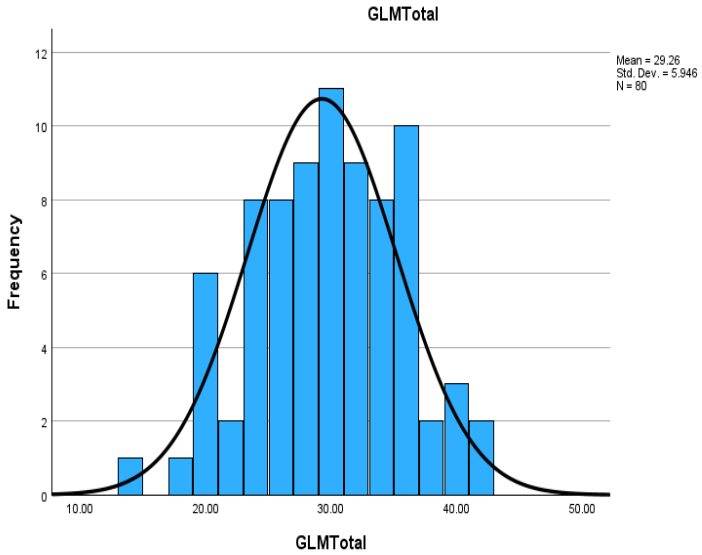


Fig.9

The histogram of GLM scores shows a distribution that is approximately normal, with a mean score of 29.26 and a standard deviation of 5.946. The sample size is sufficient, and the distribution suggests that the data is relatively symmetrically distributed with a slight positive skew. This supports the appropriateness of using parametric statistical tests for analysing differences in GLM scores between different languages

Fixed Growth Mindset

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.531	.535	7

Fig.10

Item Statistics

	Mean	Std. Deviation	N
FLM2	3.1852	1.37941	81
FLM4	3.4568	1.21500	81
FLM5	3.3951	1.28140	81
FLM1	3.2716	1.32299	81
FLM6	4.2593	1.23266	81
FLM7	3.5556	1.10680	81
FLM3	3.6914	1.22109	81

The instrument contained seven items and only 81 valid answers were captured in the survey. The initial, all seven items tested scored a poor reliability Cronbach's Alpha result of only 0.531 with a standardized score of 535. This is still a very low reliability score and the decision for this construct to be kept was made due to its importance for this study.

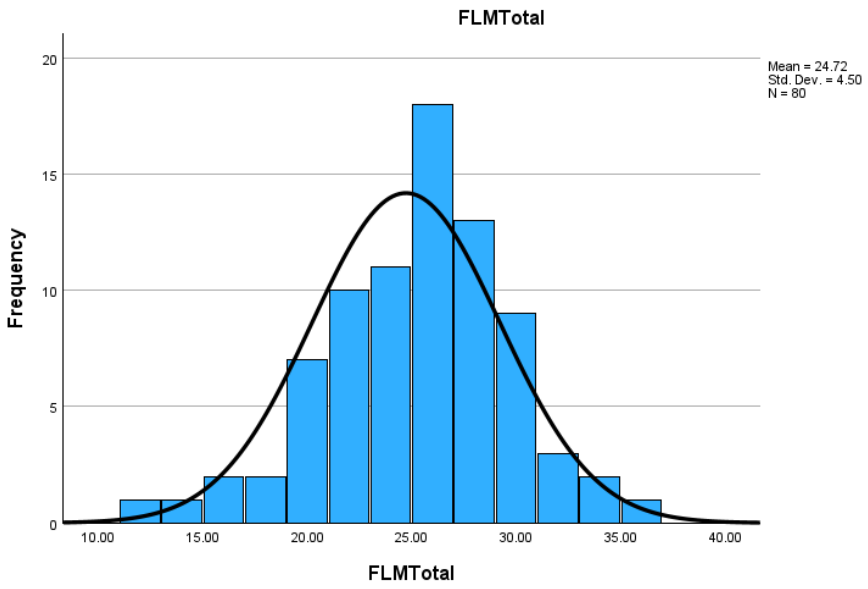


Fig.11

The normal distribution curve overlaid on the histogram fits the data reasonably well, though not perfectly. There are slight deviations, especially in the tails. The data shows a mean = 24.72, standard deviation = 4.50.

To conclude, the distribution of FLM appears to be approximately normal and based on the visual inspection alone, the distribution seems to be close enough to normal for many practical purposes. Intercorrelation tests were run as well to look at the strength of the concept measure.

3.7.3 Episodic Memory Questionnaire

The Episodic Memory Questionnaire with 10 items was slightly adapted with no major concept or question altered. The questionnaire contained 10 items but when the reliability test was conducted several items were excluded (EM3, EM5, EM7, EM9, EM10) to achieve a Cronbach's Alpha reliability of 0.713.

Reliability Statistics

Cronbach's Alpha	N of Items
.713	5

Fig.12

Item Statistics

	Mean	Std. Deviation	N
EM1	3.9753	1.54899	81
EM4	4.1605	1.51209	81
EM6	3.0123	1.81310	81
EM8	4.2346	1.48553	81
EM2	3.9630	1.47855	81

Nevertheless, if all items were kept and a SPSS (version 29) analysis is run, the histogram suggests an approximately normal distribution with a mean of 19.35 and a standard deviation of 5.365. The sample size of 81 adds reliability to these descriptive statistics. For further analysis, confirming the normality of the data would be important to justify the use of parametric statistical tests.

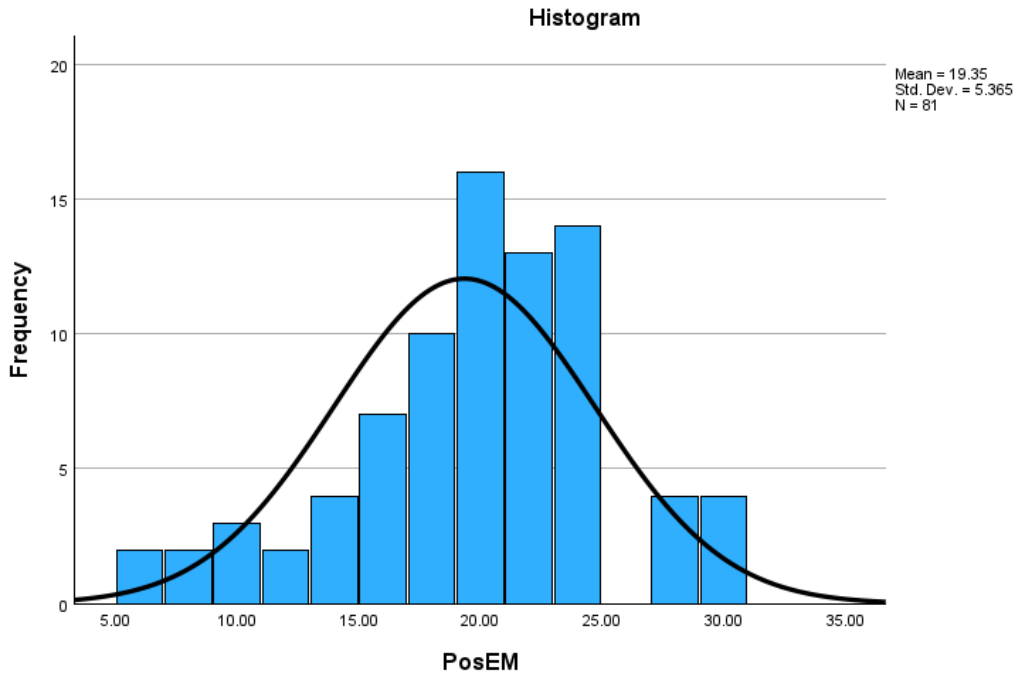


Fig.13

3.7.4 Reliability of the instruments used

Fig.14

Construct	Cronbach's Alpha	Number of items	Item deleted
Resilience	0.734	6	
FLM	0.531	7	
GLM	0.819	7	
EM	0.713	10	EM3, EM7, EM5, EM9, EM10

The table(fig.12) presents the reliability analysis of various constructs measured by Cronbach's Alpha and the number of items in each construct, along with the specific items deleted to achieve the reported reliability. The construct of Resilience had a Cronbach's Alpha of 0.734 with six items, indicating a good level of internal consistency. For the FLM construct, the Cronbach's Alpha is 0.531 with all seven items kept but with a poor reliability level. The construct was kept in the study due its importance. The GLM construct demonstrated high reliability with a Cronbach's Alpha of 0.819 and included all seven items originally intended for measurement. The EM construct had a Cronbach's Alpha of 0.713, with ten items initially included however, items EM3, EM7, EM5, EM9, and EM10 were deleted to attain this reliability score.

3.7.5 The interplay between the EMQ, BRS and the adapted LMI as a psychometric measure

Combining the Brief Resilience Scale (BRS), an adapted version of Lou and Noels' Language Mindset Inventory (LMI), and the Episodic Memory Questionnaire (EMQ) by Blair and Azaz was intended to provide a comprehensive assessment of the interplay between mindset, resilience, and previous language experience and attainment. Here are some envisaged the potential advantages and disadvantages of using these three instruments together:

First, combining these tools had the potential to offer a multi-faceted understanding of how mindset, resilience, and episodic memory interact to influence language learning.

By examining resilience (BRS), mindset towards language learning (LMI), and language experiences (EMQ), the study's goal was to identify patterns and relationships that might not be apparent when using a single measure.

Second**,** each instrument captured different aspects of the participants' experiences and beliefs, leading to a richer dataset. For instance, the BRS provided information on the students' ability to recover from setbacks, the LMI shed light on their beliefs about language learning, and the EMQ captures their past language learning experiences and feelings.

Third, using multiple measures had the potential to enhance the validity and reliability of the findings through triangulation. Furthermore, consistent findings across the BRS, LMI, and EMQ could strengthen the confidence in the results, providing a more robust picture of the factors influencing language learning.

Conversely, combining three instruments rendered the assessment process lengthier and more complex, leading to participant fatigue and potentially lower quality responses. In this context, some students with lower reading age and lower attention span found these questionnaires challenging due the way certain questions were formulated.

Moreover, some instruments, particularly the LMI and EMQ, needed adaptation to ensure more cultural and contextual relevance for EAL, disadvantaged teenage pupils and it is avenue worth exploring in the future.

Finally, some concepts had potential to become confounding variables with elements of mindset and resilience scale in danger of overlapping making it challenging to disentangle the unique contributions of each construct. In BRS6 'I tend to take a long time to get over setbacks in my life' and FLM1'I have a certain amount of language intelligence and I can't really do too much to change it' there is an element of hopelessness). This could be coupled with negative episodic memory (EM3: I remember a time when I felt bad for making a mistake).

While there were significant advantages to combining the BRS, an adapted LMI, and the EMQ, there were also notable disadvantages. The advantages included a holistic understanding, rich data, informed interventions, and seeking an enhanced validity and reliability. However, the complexity and length of the combined assessment, challenges in data integration need further validation. This requires a careful need for cultural and contextual adaptation and in more depth scrutiny of potential construct overlap.

By addressing these considerations, the combined use of the BRS, LMI, and EMQ could provide insights into the interplay between mindset, resilience, previous language experience and attainment in EAL, disadvantaged teenage pupils.

3.8. Research ethics

The study took place in line with BERA (2018)'s requirements. Once the university's approval was received (see appendix 1). All the stakeholders were informed and permission was required from the gate holders to the participants (see appendix 5).

In agreement with BERA's (2018) guidance, the participants were approached, informed about the purpose of the study and its methodological approach. A student friendly proposal was created to educate students who had several months left to their secondary academic life. In addition, I followed the approved protocols of the university for researching children. All students in the focus groups were regarded as competent youth.

All the participation took place on a voluntary basis and the participants were informed about their freedom to withdraw from the study anytime they deemed appropriate. Moreover, all throughout the study, they were reminded about their right to confidentiality and their rights and entitlements as participants.

In line with ethical requirements, students' names were changed and pseudonyms were chosen instead of randomized letters or anonymous references. The intent of

using “false names’ instead of letters or numbers was to create a ‘personal touch’ reminding the readers that the students are individuals with a “unique’ lens that matters and not just local data collected from some unknown subjects, participating to the study.

3.9. Focus groups

The students participating to this study were given the choice to participate in focus groups to discuss their points of view on the concepts examined and to offer their feedback about the study’s survey. Only two focus groups were formed with five students each. Each focus group had a mixture of male and female participants with a wide range of backgrounds.

The rationale behind using the semi-structured questions(appendix B), was that as a researcher, there was always the danger of interpreting my students’ perspective from my own experience. This way, I aimed to capture the authenticity of the participants ‘perspective. The semi-structured design allowed flexibility to adjust certain questions by seeking clarification, giving opportunities to further develop ideas while maintaining a fair and clear interview approach for all the participants where most of the questions were asked in the same order. To counter my position as research -teacher and avoid subject desirability, I conducted the focus groups, following Whyte (1982)’s ‘directiveness scale’, focusing on making encouraging noises, reflecting on participants’ responses, recasting and probing their remarks and introducing new topics.

The benefits of using this method were the incentive that focus groups provide in-depth insights into participants' attitudes, beliefs, and experiences. They allow for the exploration of complex issues in a nuanced way.**,** potentially revealing detailed reasons behind students' motivation or demotivation, which might not be captured through quantitative methods alone (Dörnyei, (2007).

Another reason was the focus group’s potential to stimulate discussions where participants share and contrast their cultural experiences, leading to a deeper understanding of the topic (Krueger, 2014).

As a teacher-researcher, I was aware of several advantages and disadvantages as discussed by Cohen et al. (2018) regarding my positionality as a teacher-researcher. Firstly, the fact the researcher was also a teacher within the participants’ proximity, made this study relevant to the practitioner and also to the students as long-term beneficiaries of reflective practice. Secondly the ‘insider knowledge and understanding ‘of

the socio-cultural context, students' needs and their challenges, provided the opportunity of enriched research through the interpretation of the data collection the choice of the sample and the methods used, enhancing their transferability to similar contexts. Conversely, by positioning myself in the middle of the research, I was aware of being in danger of having "vested interests in the outcomes' (Punch and Oancea, 2014), hence the issue of unwanted influence had to be taken into consideration (Greene and Hogan, 2005). This meant that bias and subjectivity, could affect the study's validity, adopting from the start a convenient lens to portray a certain wanted reality, impacting in this way on the study's reliability in terms of the methods and the interpretation of the collected data. To counter these dangers, the list of suggested questions (appendix 2) was followed flexibly with the aim to uncover and develop the participants' views and perceptions. Finally, these prompting questions aimed to encourage the act of self-reflection and were not used from an already, tested set of methods, existent in other studies but empirically designed to generate answers inspired by students' immediate reality. This flexibility could arguably pose some bias and unreliability issues (Cohen et al, 2018). However, the choice of the questions was made with a naturalistic approach, inquiring about their immediate contexts, needs, beliefs and opinions. Hence, by observing the participants' language perceptions, the researcher doesn't claim the possibility of a full transferability of this small-scale intervention's findings to any participants or context. This post-positivist approach recognised the impossibility of absolute knowledge of the world, admitting its constant ever changeable subjective nature. Consequently, the researcher admits unavoidable subjectivity and an awareness that every research holds a 'theory-laden' lens (Cohen et al.,2018) which reflects investigator's values and perceptions. For instance, what is deemed valuable and good by researchers and how each participant has a unique perspective, encapsulating past experiences, needs and wants. To counter these aspects, the researcher strived for transparency and authenticity in her measures to ensure validity and reliability of findings.

In the focus groups, which took place during consensual times of the day, the researcher aimed to counteract the 'Interview effect (Cohen et al., 2018) which meant that there was an imbalance of power. This was attempted by recasting candidates' statements in a friendly, neutral, non-judgemental position, maintaining mostly the same structure for the ten participants .

Throughout the process, confidentiality and anonymity were maintained by the replacement of names with pseudonyms, as supported by Flick (2015).

All data was treated confidentially throughout, stored on the researcher's personal computer and only accessible by the researcher. The ethics of the study was evaluated throughout the project and I was held accountable throughout the research by my dissertation mentor (BERA, 2018).

3.10 Method of Analysis

The analysis method for this study involved the distribution of language preferences, the grades achieved, and the interrelationships among various psychological constructs such as resilience, fixed language mindset (FLM), growth language mindset (GLM), and episodic memory (EM).

3.10.1. Descriptive statistics

Descriptive statistics were employed to provide an overview of the demographic distribution and language performance within the cohort. This included calculating frequencies and percentages for gender distribution. The distribution of grades was also summarised using descriptive statistics to identify the most and least common grades. Crosstabulation analysis was used to explore the distribution of grades across different languages. This involved creating a contingency table that displayed the count and percentage of students achieving each grade in each language (French, Spanish, Urdu). This allowed for the identification of patterns and trends in language performance across different grade levels.

To conclude, this cross-sectional study combined quantitative methods such as BRS, LMI and EMI questionnaire with focus groups as qualitative measures, to capture the interplay between resilience, language mindset, episodic memory and grades for three GCSE language cohorts: French, Spanish and Urdu.

FINDINGS

In this chapter, I will present the findings in the order of the research questions posed. The chapter will initiate with the explanation of the grades distribution across the three languages studied. Each question's findings will be explained and compared against the review literature for a critical evaluation, aiming to highlight how the findings align with or differ from previous research. The chapter will conclude with a summary of the results, setting the stage for a more detailed concluding chapter.

4.1 Attainment across the three languages

The cohort involved 81 MFL students who completed all the questionnaires in full and gave consent .The gender distribution included 29 males (35.8%) and 52 females (64.2%). The graph below(fig.13) represents the distribution of grades obtained by a cohort of GCSE students in Modern Foreign Languages (French, Spanish, Urdu), with grades ranging from 1 (the lowest) to 9 (the highest). The graph shows that the most common grade achieved is grade 3, with 28.4% of students attaining this grade. Following this, grade 2 is the second most frequent, with 16% of students. Grade 4 is the third most common, representing 14.8% of students. Grades 5 and 1 have similar frequencies, at 11.1% and 9.9%, respectively. The occurrence of grades decreases for higher grades, with grade 6 at 7.4%, grade 8 at 4.9%, and both grades 7 and 9 at 3.7%.

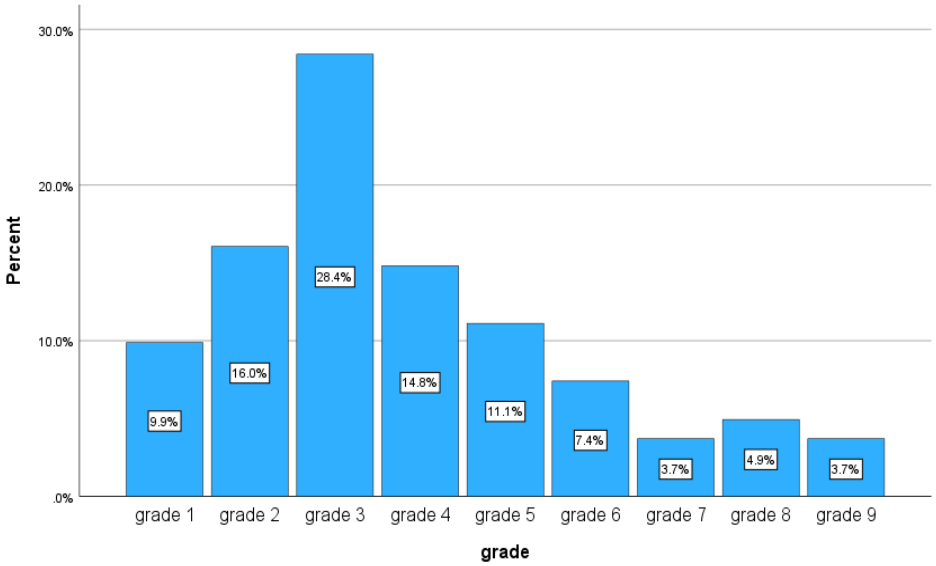


Fig.15

The crosstabulation table(fig.16) illustrates the distribution of grades across different languages among a total of 81 students. Grade 2 has the highest count of students

overall, with 13 students, predominantly choosing Spanish (46.2%) and French (38.5%). Grade 3 exhibits a more balanced distribution among the languages, with French, Spanish, and Urdu represented at 26.1%, 39.1%, and 34.8%, respectively. Notably, Grade 9 students exclusively belonged to the Spanish cohort, reflecting a specific language preference within this grade.

Fig.16

grade * language Crosstabulation

			language			
			French	Spanish	Urdu	Total
grade	grade 1	Count	1	5	2	8
		% within grade	12.5%	62.5%	25.0%	100.0%
	grade 2	Count	5	6	2	13
		% within grade	38.5%	46.2%	15.4%	100.0%
	grade 3	Count	6	9	8	23
		% within grade	26.1%	39.1%	34.8%	100.0%
	grade 4	Count	1	8	3	12
		% within grade	8.3%	66.7%	25.0%	100.0%
	grade 5	Count	1	6	2	9
		% within grade	11.1%	66.7%	22.2%	100.0%
	grade 6	Count	0	4	2	6
		% within grade	0.0%	66.7%	33.3%	100.0%
	grade 7	Count	1	1	1	3
		% within grade	33.3%	33.3%	33.3%	100.0%
	grade 8	Count	0	3	1	4
		% within grade	0.0%	75.0%	25.0%	100.0%
	grade 9	Count	0	3	0	3
		% within grade	0.0%	100.0%	0.0%	100.0%
Total		Count	15	45	21	81
		% within grade	18.5%	55.6%	25.9%	100.0%

4.2 To what extent if any, there is a correlation between language mindset and attainment?

4.2.1 Fixed Mindset

The results on fixed language mindset illustrate diverse beliefs regarding the potential to improve language intelligence. For the statement, "My language intelligence is something that I can't change very much," 34.6% of participants slightly disagreed, indicating some confidence in their ability to change, while 13.6% strongly disagreed and 14.8% moderately disagreed. On the other hand, 21.0% slightly agreed, suggesting some belief in the fixed nature of their language skills. Regarding the difficulty of improving language proficiency, 38.3% slightly agreed with the statement "It is difficult to change how good I am at foreign languages," while 28.4% slightly disagreed, highlighting mixed opinions on this matter. The belief that "Many people will never do well in foreign languages even if they try hard because they lack natural language intelligence" was mostly met with neutrality (35.8%), though 18.5% moderately disagreed and 22.2% moderately agreed. Lastly, the notion that language skills developed in adulthood would improve very little was slightly agreed upon by 39.5% of participants, whereas 29.6% slightly disagreed.

Pearson test was employed to look at the relationship between the attainment and fixed language mindset

Fig.17

		grade	FLM1	FLM2	FLM3	FLM4	FLM5	FLM6	FLM7
grade	Pearson Correlation	1	-.064	.008	.003	-.157	-.129	.133	-.013
	Sig. (2-tailed)		.570	.947	.980	.163	.249	.235	.911
	N	83	82	82	82	81	82	82	81
FLM1	Pearson Correlation	-.064	1	.611**	.018	.281*	-.206	-.027	.281*
	Sig. (2-tailed)	.570		<.001	.875	.011	.064	.807	.011
	N	82	82	82	82	81	82	82	81
FLM2	Pearson Correlation	.008	.611**	1	.045	.189	-.086	.044	.218
	Sig. (2-tailed)	.947	<.001		.689	.092	.440	.692	.051
	N	82	82	82	82	81	82	82	81
FLM3	Pearson Correlation	.003	.018	.045	1	.134	.455**	.308**	.054
	Sig. (2-tailed)	.980	.875	.689		.233	<.001	.005	.633
	N	82	82	82	82	81	82	82	81
FLM4	Pearson Correlation	-.157	.281*	.189	.134	1	.013	-.002	.349**
	Sig. (2-tailed)	.163	.011	.092	.233		.908	.988	.002
	N	81	81	81	81	81	81	81	80
FLM5	Pearson Correlation	-.129	-.206	-.086	.455**	.013	1	.064	-.019
	Sig. (2-tailed)	.249	.064	.440	<.001	.908		.565	.864
	N	82	82	82	82	81	82	82	81
FLM6	Pearson Correlation	.133	-.027	.044	.308**	-.002	.064	1	.264*
	Sig. (2-tailed)	.235	.807	.692	.005	.988	.565		.017
	N	82	82	82	82	81	82	82	81
FLM7	Pearson Correlation	-.013	.281*	.218	.054	.349**	-.019	.264*	1
	Sig. (2-tailed)	.911	.011	.051	.633	.002	.864	.017	
	N	81	81	81	81	80	81	81	81

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The table above (fig.17) shows the Pearson correlation coefficients between grades and all the items of the fixed language mindset (FLM1 to FLM7). Firstly, I looked at the correlation between individual items on the FLM scale and grades and then I looked at the intercorrelations between the FLM items to scrutinise the robustness of the construct. The analysis of the relationship between grades and FLM items revealed a weak correlation, not statistically significant ranging from (r=-0.157 to 0.133, p =0.163 to 0.980). All the FLM1 to FLM7 reveal weak and non-significant correlations with grades, suggesting that fixed language mindset measures do not have a strong relationship with academic performance in this study. The highest (but still weak and non-significant) correlation with grades is for FLM4 (r = -0.157, p = 0.163), indicating a slight trend where a more fixed language mindset might be associated with lower grades. Regarding the inter-correlations between FLM items, the data shows that FLM1 is significantly correlated with FLM2 (r = 0.611, p < 0.001) and FLM4 (r = 0.281, p = 0.011). Same results apply for FLM3, which shows a strong positive correlation with FLM5 (r = 0.455, p < 0.001) and FLM6 (r = 0.308, p = 0.005) and finally FLM7 is significantly correlated with FLM4 (r = 0.349, p = 0.002) and FLM6 (r = 0.264, p =

0.017). The significant inter-correlations among various fixed language mindset measures indicate that these items are capturing related aspects of a fixed mindset about language learning. For instance, the high correlation between FLM1 and FLM2 ($r = 0.611$, $p < 0.001$) suggests that these items are measuring similar constructs within the fixed language mindset area.

Evaluating its significance, none of the correlations between grades and fixed language mindset measures are statistically significant. This suggests that in this sample, a fixed language mindset does not predict academic performance. The significant inter-correlations among some fixed language mindset measures indicate reliability within the mindset construct, but this does not extend to predicting grades.

The correlations between grades and fixed language mindset measures are non-existent or generally weak, indicating that other factors are likely to be taken into account to fully evaluate this complex relationship with the academic performance. The lack of significant correlations suggests that fixed language mindset is not a primary factor influencing grades.

To conclude, the analysis reveals that fixed language mindset doesn't show any significant correlations with academic performance. This suggests that in this sample, having a fixed mindset about language learning does not strongly predict or influence academic success. The significant inter-correlations among fixed language mindset measures indicate they are capturing a coherent construct, but it does not appear to be directly linked to the language attainment.

4.2.2 Growth Language Mindset

The survey results(fig.16) on the growth language mindset highlight participants' optimistic views on their potential to improve language intelligence. For the **GLM10** statement, "No matter who I am, I can significantly change my language intelligence level," 32.1% moderately agreed and 27.2% slightly agreed, demonstrating strong belief in the potential for significant change. Similarly, for **GLM11** "I can always substantially change my language intelligence," 44.4% slightly agreed and 16.0% moderately agreed, showing a prevailing confidence in the ability to improve. When asked if they could a change their language intelligence quite a bit, no matter how much they have

it **(GLM12),** 42.0% slightly agreed and 28.4% moderately agreed, reinforcing this belief. For the **GLM13** item "I can always change my foreign language ability," 46.9% slightly agreed and 14.8% strongly agreed, indicating a strong belief in the potential for improvement. The sentiment that hard work leads to better language skills was also prevalent, with 32.1% strongly agreeing and 28.4% moderately agreeing with the **GM14** statement "In learning a foreign language, if I work hard at it, I will always get better." Regarding the belief that consistent effort will lead to improvement in language proficiency, 25.9% of participants both slightly and strongly agreed with **GLM15** "How good I am at using a foreign language will always improve if I really work at it." Lastly, the statement "Everyone could do well in a foreign language if they try hard, whether they are young or old" amounted 25.9% strong agreement and 24.7% slight agreement, suggesting a widespread belief in the universal potential for language learning improvement.

Fig.18

Growth language mindset		strongly disagree	moderately disagree	slightly disagree	sightly agree	moderately agree	strongly agree
No matter who I am, I can significantly change my language intelligence level. **GLM10**	N	1	8	16	22	26	8
	%	1.2%	9.9%	19.8%	27.2%	32.1%	9.9%
I can always substantially change my language intelligence **GLM11**	N	1	10	15	36	13	6
	%	1.2%	12.3%	18.5%	44.4%	16.0%	7.4%
No matter how much language intelligence I have, I can always change it quite a bit. **GLM12**	N	4	6	10	34	23	4
	%	4.9%	7.4%	12.3%	42.0%	28.4%	4.9%
I can always change my foreign language ability. **GLM13**	N	1	7	15	38	8	12
	%	1.2%	8.6%	18.5%	46.9%	9.9%	14.8%
In learning a foreign language, if I work hard at it, I will always get better. **GLM14**	N	0	7	7	18	23	26
	%	0.0%	8.6%	8.6%	22.2%	28.4%	32.1%
How good I am at using a foreign language will always improve if I really work at it. **GLM15**	N	2	5	12	21	20	21
	%	2.5%	6.2%	14.8%	25.9%	24.7%	25.9%
Everyone could do well in a foreign language if they try hard, whether they are young or old **GLM16**	N	2	5	15	20	18	21
	%	2.5%	6.2%	18.5%	24.7%	22.2%	25.9%

To measure the relationship between GLM and attainment, a Pearson correlation was run (see fig. 19).

Fig.19

Correlations

		grade	GLM10	GLM11	GLM12	GLM13	GLM14	GLM15	GLM16
grade	Pearson Correlation	1	.156	.239*	.370**	.239*	.110	.110	.091
	Sig. (2-tailed)		.163	.033	<.001	.032	.326	.330	.419
	N	83	81	80	81	81	81	81	81
GLM10	Pearson Correlation	.156	1	.504**	.540**	.333**	.453**	.467**	.369**
	Sig. (2-tailed)	.163		<.001	<.001	.002	<.001	<.001	<.001
	N	81	81	80	81	81	81	81	81
GLM11	Pearson Correlation	.239*	.504**	1	.559**	.487**	.210	.435**	.244*
	Sig. (2-tailed)	.033	<.001		<.001	<.001	.062	<.001	.029
	N	80	80	80	80	80	80	80	80
GLM12	Pearson Correlation	.370**	.540**	.559**	1	.470**	.393**	.270*	.287**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	<.001	.015	.009
	N	81	81	80	81	81	81	81	81
GLM13	Pearson Correlation	.239*	.333**	.487**	.470**	1	.274*	.456**	.104
	Sig. (2-tailed)	.032	.002	<.001	<.001		.013	<.001	.355
	N	81	81	80	81	81	81	81	81
GLM14	Pearson Correlation	.110	.453**	.210	.393**	.274*	1	.605**	.464**
	Sig. (2-tailed)	.326	<.001	.062	<.001	.013		<.001	<.001
	N	81	81	80	81	81	81	81	81
GLM15	Pearson Correlation	.110	.467**	.435**	.270*	.456**	.605**	1	.393**
	Sig. (2-tailed)	.330	<.001	<.001	.015	<.001	<.001		<.001
	N	81	81	80	81	81	81	81	81
GLM16	Pearson Correlation	.091	.369**	.244*	.287**	.104	.464**	.393**	1
	Sig. (2-tailed)	.419	<.001	.029	.009	.355	<.001	<.001	
	N	81	81	80	81	81	81	81	81

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The data collected revealed moderate positive correlation between some GLM measures and grades with GM 12($r = 0.370$, $p < 0.001$), statistically significant at the 0.01 level and GM13($r = 0.239$, $p = 0.03$, statistically significant at the 0.05 level. Same statistically significant correlation presented GM11($r = 0.239$, $p = 0.033$). Moreover, GLM10, GLM14, GLM15 and GLM16 presented a weak correlation with grades ranging from ($r = 0.091$ to $r = 0.156$ and $p = 0.163$ to $p = 0.419$)

Overall, **GLM12 ($r = 0.370$, $p < 0.001$)** had the strongest positive correlation with grades, suggesting that higher scores in this growth mindset measure are associated with better grades. This indicated that GLM12 might be a particularly strong indicator of academic performance. **GLM11 ($r = 0.239$, $p = 0.033$)** and **GLM13 ($r = 0.239$, $p = 0.032$)** also showed significant positive correlations with grades, implying that these measures of growth mindset are relevant to academic success. Conversely, **GLM10, GLM14, GLM15, and GLM16** have weak and non-significant correlations with grades, indicating they might not be as relevant to academic performance or that their relationship is more complex.

Looking at the relationship between the different GLM items, most growth mindset measures are significantly inter-correlated, indicating that they capture related aspects of the growth mindset construct. For instance, GLM12 shows strong positive correlations with GLM11 (r = 0.559), GLM10 (r = 0.540), and other measures, indicating it is a central measure among these variables. GLM14 and GLM15 have the highest correlation (r = 0.605), pointing out that they are very closely related.

To sum up, the significant correlations among most growth mindset measures indicate a coherent construct of growth mindset, where performance in one measure is generally indicative of performance in others. The correlations between grades and **GLM11**, **GLM12**, and **GLM13** are statistically significant, suggesting a reliable relationship between these growth mindset measures and academic performance. The non-significant correlations for **GLM10**, **GLM14**, **GLM15**, and **GLM16** indicate that these measures may not be useful predictors of grades in this sample. The moderate correlations (around 0.2 to 0.4) between certain growth mindset measures and grades suggest that while there is a relationship, it is not particularly strong. Other factors likely contribute significantly to academic performance.

The variability in correlations among different growth mindset measures and grades implies that not all aspects of growth mindset are equally relevant to academic success. Further research could investigate why certain growth mindset measures (e.g., GLM12) are more strongly related to grades and explore potential interventions to enhance these specific aspects of growth mindset.

In conclusion, to answer the question about whether there is a correlation between language mindset and attainment, the fixed mindset does not present any significant correlation with attainment. This is line with Collett and Berg (2020)'s findings, although the studies have different types of participants. Conversely, some aspects of the growth mindset are significantly correlated to attainment. These results were confirmed by Collete and Berg (2020), Lou and Noels (2020) and Khajavy, MacIntyre and Hariri (2021). The first study found small corelations between incremental language mindset and self-reported proficiency. In Lou and Noels (2020), growth mindset positively predicted self-reported language proficiency, mediated by the ideal-self construct. Nevertheless, the difference resided in the fact that the authors found a link between resilience and growth mindset, which is not mirrored in this study. In the third

study, Khajavy, MacIntyre and Hariri (2021), found out that the growth mindset presented some positive correlations with language achievement while the fixed mindset negatively predicted consistency of interest but had no significant correlation with attainment. This is echoed by this study's findings which revealed a negative correlation between fixed mindset and resilience. Referring back to the literature review, the concept of resilience encompasses the determination to pursue a goal despite difficult circumstances (Kim et al.,2019). The results show that students with low expectations, give up easier and consider failure as a final destination due to a capped aspiration in their own abilities.

4.3 To what extent if any, there is a correlation between episodic memory and attainment?

Hypothesis: For students studying Urdu, the language may be perceived as more important due to its heritage value, potentially leading to more positive episodic memories compared to those of students studying French and Spanish.

Episodic memory reveal participants' recollections of positive experiences using Spanish, Urdu, or French. For **EM1** item, "I remember a time when I felt happy successfully using Spanish/Urdu/French in the classroom," the majority slightly agreed (29.6%) and moderately agreed (27.2%), indicating that many have had positive classroom experiences with these languages. Similarly, the **EM2** statement "I remember a time when I was overjoyed getting a good grade on my Spanish/Urdu/French homework/test" saw the highest agreement levels, with 39.5% slightly agreeing and 17.3% strongly agreeing. When asked about being praised in language class, 25.9% of participants both slightly and moderately agreed, and 21.0% strongly agreed, indicating that praise from teachers or classmates was a common and memorable positive experience. Conversely, the **EM6** measure "I remember a time when I travelled and enjoyed visiting a Spanish/Urdu/French-speaking country" showed a more varied response, with 37.0% strongly disagreeing and only 25.9% slightly agreeing, suggesting that fewer participants had travel experiences related to these languages. Finally, the **EM8** item "I remember a time when I was successful communicating in Spanish/Urdu/French with others" had strong responses, with 30.9% slightly agreeing and 28.4% strongly agreeing, reflecting that many participants have had successful communication experiences in these languages(fig.20)

Fig.20

Episodic memory		strongly disagree	moderately disagree	slightly disagree	sightly agree	moderately agree	strongly agree
I remember a time when I felt happy successfully using Spanish/Urdu/French in the classroom **EM1**	N	12	1	10	24	22	12
	%	14.8%	1.2%	12.3%	29.6%	27.2%	14.8%
I remember a time when I was overjoyed getting a good grade on my Spanish/Urdu/French homework/test.**EM2**	N	9	4	9	32	13	14
	%	11.1%	4.9%	11.1%	39.5%	16.0%	17.3%
I remember a time when a teacher/classmate praised me in Spanish/Urdu/French class. **EM4**	N	7	6	9	21	21	17
	%	8.6%	7.4%	11.1%	25.9%	25.9%	21.0%
I remember a time when I travelled and enjoyed visiting a Spanish/Urdu/French-speaking country. **EM6**	N	30	4	9	21	7	10
	%	37.0%	4.9%	11.1%	25.9%	8.6%	12.3%
I remember a time when I was successful communicating in Spanish/Urdu/French with others **EM8**	N	4	8	10	25	11	23
	%	4.9%	9.9%	12.3%	30.9%	13.6%	28.4%

Fig.21

Correlations

		grade	EM1	EM4	EM6	EM8	EM2
grade	Pearson Correlation	1	.263*	.135	.024	.360**	.296**
	Sig. (2-tailed)		.018	.229	.833	<.001	.007
	N	83	81	81	81	81	81
EM1	Pearson Correlation	.263*	1	.487**	.076	.540**	.638**
	Sig. (2-tailed)	.018		<.001	.501	<.001	<.001
	N	81	81	81	81	81	81
EM4	Pearson Correlation	.135	.487**	1	.072	.423**	.444**
	Sig. (2-tailed)	.229	<.001		.522	<.001	<.001
	N	81	81	81	81	81	81
EM6	Pearson Correlation	.024	.076	.072	1	.129	.238*
	Sig. (2-tailed)	.833	.501	.522		.252	.032
	N	81	81	81	81	81	81
EM8	Pearson Correlation	.360**	.540**	.423**	.129	1	.465**
	Sig. (2-tailed)	<.001	<.001	<.001	.252		<.001
	N	81	81	81	81	81	81
EM2	Pearson Correlation	.296**	.638**	.444**	.238*	.465**	1
	Sig. (2-tailed)	.007	<.001	<.001	.032	<.001	
	N	81	81	81	81	81	81

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The table above(fig.21) provides the Pearson correlation coefficients between grades and the EM1, EM2, EM4, EM6, EM8 items form the Episodic Memory scale**.** All the EM items showed a positive correlation with the grades but not all them revealed the same statistical significance. For instance, **EM1, EM2 and EM8** related to feelings such as overjoy, happiness and success in language learning revealed a moderate positive correlation ranging from r=0.263 to r=0.360, p=0.001 to p=0.018) with a statistical significance between 0.01 and 0.05. The **EM4** measure linked to positive feedback from teacher and classmates showed a weak positive correlation with grades (r = 0.135, p = 0.229) while **EM6** item focused on positive travelling experience in a country where the language studied was spoken showed a very weak positive correlation with grades (r = 0.024, p = 0.833) and this correlation was not statistically significant.

Unfolding the data above, **EM8 (r = 0.360, p < 0.001)** shows the strongest positive correlation with grades, indicating that higher scores in this episodic memory measure are associated with better grades. This suggests EM8 might be a particularly good

indicator of academic performance. Same applied **to EM2 (r = 0.296, p = 0.007)** and **EM1 (r = 0.263, p = 0.018)** also show significant positive correlations with grades, suggesting these measures of episodic memory are relevant to academic success. Conversely **EM4** and **EM6** have weak and non-significant correlations with grades, indicating they might not be as relevant to academic performance or that their relationship is more complex. The moderate correlations (around 0.3 to 0.4) between certain episodic memory items and attainment suggest that while there is a relationship, it is not particularly strong. Other factors likely contribute significantly to academic performance. Furthermore, looking at the intercorrelation between the items studied, the results showed that **EM1** was significantly correlated with **EM4 (r = 0.487)**, **EM8 (r = 0.540)**, and **EM2 (r = 0.638)**, with strong positive correlations. Moreover, EM**2** showed significant correlations with all other episodic memory measures, indicating it is a central measure among these variables.**EM6** indicated the weakest correlations with other episodic memory measures, with only **EM2 (r = 0.238, p = 0.032)** being significant. High inter-correlations, such as between **EM1 and EM2 (r = 0.638)**, suggest that these measures are capturing related aspects of episodic memory. The significant correlations among most episodic memory measures indicate a coherent and robust construct of episodic memory

Overall, referring back to the question on whether there is a correlation between episodic memories and attainment, the results indicated that certain aspects of episodic memory (specifically EM1, EM2, and EM8) had a statistically significant correlation with academic performance. This implies that higher episodic memory performance in these areas was associated with higher grades. others. **EM8***(I remember a time when I was successful communication in French/Spanish/Urdu*) appears to be the most promising episodic memory measure in relation to academic performance, as indicated by the strongest and most significant correlation with grades. The variability in correlations among different episodic memory measures and grades implies that not all aspects of episodic memory are equally relevant to academic success. Further research could investigate why certain episodic memory measures (e.g., EM8) are more strongly related to grades and explore potential interventions to enhance these specific memory skills. While some episodic memory aspects are related to grades, the relationship is not uniform across all types of episodic memory. Further investigation could

explore why certain episodic memory dimensions are more closely linked to academic performance than others.

Most of the positive correlations could be observed between positive episodic memories related to learner's overall feelings and attainment. These findings are confirmed by Dörnyei and Csizér(2002) with one of the few longitudinal studies that looked at teenagers' students when evaluating the link between positive language learning memories and high proficiency levels. In contrast with their study where the teaching style, the teacher praise and feedback had a significant positive correlation with language motivation and attainment , in this study the results for the EM4 measure related to teacher's praise had no significant correlation with attainment. This could be explained by the fact that only one item in the scale might not be enough to show a significant relevance comparing to the results of a longitudinal study as Dörnyei and Csizér (2002)'s. Furthermore, the four-year gap difference between the two samples could imply that the younger the participants, the more important the relationship with their language teacher.

4.4. To what extent, if any, there is a correlation between resilience and attainment?

The results for the resilience scale show a varied distribution of responses across different statements(fig.22). For the **BRS1** statement, "I tend to bounce back quickly after hard times," most participants either agreed (34.6%) or remained neutral (35.8%), while a smaller percentage strongly agreed (11.1%). On the other hand, when asked if they "have a hard time making it through stressful events,"**(BRS2)** 34.6% of respondents were neutral, and 30.9% agreed, indicating a significant number experience difficulty under stress. Similarly, responses to **BRS3** measure "It does not take me long to recover from a stressful event" showed that 35.8% agreed and 28.4% were neutral, implying a general tendency to recover quickly. However, 45.7% of participants remained neutral when asked if it was hard for them to snap back after something bad happens **(BRS4),** reflecting mixed experiences with resilience. Moreover, 35.8% of respondents were neutral on usually coming through difficult times with little trouble, while 29.6% agreed (**BRS5).** For the **BRS6** item "I tend to take a long time to get over setbacks in my life", 34.6% of participants agreed with this statement and 25.9% were neutral.

Fig.22

Resilience		Strongly disagree	disagree	neutral	agree	strongly agree
I tend to bounce back quickly after hard times. **BRS1**	N	5	10	29	28	9
	%	6.2%	12.3%	35.8%	34.6%	11.1%
I have a hard time making it through stressful events. **BRS2**	N	2	16	28	25	10
	%	2.5%	19.8%	34.6%	30.9%	12.3%
It does not take me long to recover from a stressful event. **BRS3**	N	8	13	23	29	8
	%	9.9%	16.0%	28.4%	35.8%	9.9%
It is hard for me to snap back when something bad happens. **BRS4**	N	2	10	37	21	11
	%	2.5%	12.3%	45.7%	25.9%	13.6%
I usually come through difficult times with little trouble. **BRS5**	N	6	15	29	24	7
	%	7.4%	18.5%	35.8%	29.6%	8.6%
I tend to take a long time to get over set-backs in my life. **BRS6**	N	5	17	21	28	10
	%	6.2%	21.0%	25.9%	34.6%	12.3%

The relationship between all the items (BRS1 TO BRS6) and grades was analysed using Pearson's parametric correlation method in order to assess the strength and direction of the linear rapport between the variables. The table (fig.23) below shows the Pearson correlation coefficients between resilience and grades. Table

Correlations

		resilience1	resilience3	resilience2	resilience4	resilience5	resilience6	grade
resilience1	Pearson Correlation	1	.430**	.291**	.304**	.239*	.234*	.084
	Sig. (2-tailed)		<.001	.008	.005	.031	.034	.451
	N	82	82	82	82	82	82	82
resilience3	Pearson Correlation	.430**	1	.175	.391**	.351**	.235*	-.041
	Sig. (2-tailed)	<.001		.116	<.001	.001	.034	.713
	N	82	82	82	82	82	82	82
resilience2	Pearson Correlation	.291**	.175	1	.511**	.165	.520**	.151
	Sig. (2-tailed)	.008	.116		<.001	.138	<.001	.176
	N	82	82	82	82	82	82	82
resilience4	Pearson Correlation	.304**	.391**	.511**	1	.352**	.479**	-.049
	Sig. (2-tailed)	.005	<.001	<.001		.001	<.001	.659
	N	82	82	82	82	82	82	82
resilience5	Pearson Correlation	.239*	.351**	.165	.352**	1	.124	-.051
	Sig. (2-tailed)	.031	.001	.138	.001		.267	.652
	N	82	82	82	82	82	82	82
resilience6	Pearson Correlation	.234*	.235*	.520**	.479**	.124	1	.074
	Sig. (2-tailed)	.034	.034	<.001	<.001	.267		.510
	N	82	82	82	82	82	82	82
grade	Pearson Correlation	.084	-.041	.151	-.049	-.051	.074	1
	Sig. (2-tailed)	.451	.713	.176	.659	.652	.510	
	N	82	82	82	82	82	82	83

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Fig.23

The results reveal a very weak positive correlation with grades, which is nor significantly significant for BRS1, BRS2 and BRS6 (r=0.084, 0.151 and 0.074 with p=0.451,0.176 and 0.510). Moreover, BRS3, BRS4 and BRS 5 showed a very weak negative correlation with grades ranging from (r=-0.051 to -0.041 and p=0.652 to 0.713). Overall, the correlations between resilience measures and grades are very weak and not statistically significant. This suggests that in this sample, there is no meaningful relationship between students' resilience scores and their academic performance as measured by grades. It is possible that the scale chosen in this study could not measure other components of resilience such as long-term resilience factors such as perseverance that could influence attainment or that resilience might affect grades in ways that cannot be captured by simple linear correlation.

Regarding the intercorrelation between all the six items of the BRS scale to check the robustness of the concept measured, results indicate that **BRS 1** has significant positive correlations with **BRS3 (0.430)**, **BRS2 (0.291)**, **BRS4 (0.304)**, **BRS5 (0.239)**, and **BRS6 (0.234).** **BRS2** is strongly correlated with **BRS4 (0.511)** and **BRS6 (0.520)**. **BRS4** is strongly correlated with **BRS3 (0.391)** and **BRS6 (0.479)**. These significant positive correlations among the various resilience measures suggest that these different aspects of resilience are related to each other. If a student scored high on one aspect of resilience, they were likely to score high on others as well. The strongest inter-correlations are between **BRS2 and BRS6 (0.520)**, and **BRS2 and BRS4 (0.511)**, suggested that these particular factors of resilience may share common underlying traits.

To answer the question on whether there is a correlation between resilience and attainment, none of the resilience measures show a statistically significant correlation with grades, indicating that any observed relationships were likely due to chance rather than a true underlying relationship. The p-values associated with these correlations are above the significance threshold (0.05), reinforcing the lack of significant association. The highest correlation is between grades and resilience 2 (r = 0.151), but it is not statistically significant (p = 0.176). All the correlations between resilience measures and grades are very weak, with absolute values ranging from 0.041 to 0.151.

To sum up, there was no significant corelation found between resilience and attainment. This is in contradiction with Lou and Noels (2020)'s findings in which students who reported growth mindset, presented more resilience and thus higher self-reported proficiency levels. This can be explained by the different measuring criteria in the present study which looked solely at official attainment not self-reported proficiency levels and eliminated from the equation the growth mindset influence. Nevertheless, the findings of this study coincide with Kim et al. (2019)'s results which showed no significant direct correlation between resilience and L2 proficiency (β=.11, p> .05). The two studies shared also the same type of cohort with teenage participants, implying that future research could further examine the relationship between age, resilience, and L2 learning proficiency.

4.5 Are there any differences between the three languages studied (French, Spanish, Urdu)?

To analyse the findings for this question, the Tukey HSD (Honestly Significant Difference) test was used to look at the multiple comparisons between three languages (Spanish, French, and Urdu) for four dependent variables: EM (Episodic Memory), GLM (Growth Mindset), Resilience, and FLM (Fixed Language Mindset). These results were complemented by ANOVA (Analysis of Variance) effect sizes to quantify the magnitude of differences between groups in the context of an ANOVA test.

The hypothesis was that learners studying Urdu might perceive the language as more significant due to its heritage value, resulting in more positive episodic memories than those of students studying French and Spanish. Therefore, the first aspect analysed using Turkey HSD test was whether there is a difference between the French, Spanish and Urdu cohorts when talking about the influence of past language learning experiences (EM). Fig.24

Descriptives

			N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
							Lower Bound	Upper Bound			
PosEM	Spanish		45	20.2444	4.71533	.70292	18.8278	21.6611	8.00	30.00	
	French		15	15.2667	6.15823	1.59005	11.8564	18.6770	6.00	23.00	
	Urdu		21	20.3333	4.93288	1.07644	18.0879	22.5788	12.00	30.00	
	Total		81	19.3457	5.36461	.59607	18.1595	20.5319	6.00	30.00	
	Model	Fixed Effects			5.05852	.56206	18.2267	20.4646			
		Random Effects				1.58334	12.5331	26.1582			5.34208

The table above(fig.24) gives an overview of episodic memory (PosEM) scores across three language groups: Spanish, French, and Urdu analysed through One Way ANOVA test. Results show that Spanish (N=45) and Urdu (N=21) students have similar mean scores, 20.2444 and 20.3333 respectively, with overlapping 95% confidence intervals ([18.8278, 21.6611] for Spanish and [18.0879, 22.5788] for Urdu), indicating no significant difference between these groups. In contrast, French learners (N=15) have a significantly lower mean score of 15.2667, with a confidence interval of [11.8564, 18.6770], which does not overlap with the intervals of the other two groups, highlighting a significant difference. The standard deviations are 4.71533 for Spanish, 4.93288 for Urdu, and 6.15823 for French, suggesting higher variability among French cohort.

The data clearly highlights differences in episodic memory scores among the three language groups. French students score significantly lower than both Spanish and Urdu learners. This difference could be attributed to various factors including cultural, educational, or linguistic influences on memory performance.

To sum up, the descriptive statistics indicate that French learners have significantly lower episodic memory scores compared to Spanish and Urdu students, which have similar scores. While Urdu results are marginally higher than Spanish, this difference is not significant. The findings are statistically robust, backed by appropriate measures of variability and confidence intervals. The slightly higher scores for Urdu could reflect a heritage aspect, highlighting the potential cultural connection with language learning episodic memory. These results are in agreement with Dörnyei and Csizér (2002)'s findings where higher positive episodic memories were associated with the status of the language studied with L2 English recording superior results comparing to other foreign languages among the teenage participants.

PosEM

Tukey HSD[a,b]

language	N	Subset for alpha = 0.05	
		1	2
French	15	15.2667	
Spanish	45		20.2444
Urdu	21		20.3333
Sig.		1.000	.998

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 21.977.

b. The group sizes are unequal. The harmonic mean of the group sizes is used. Type I error levels are not guaranteed.

fig.25

The analysis of the Tukey HSD (Honestly Significant Difference) results for Episodic Memory scores across three language groups—French, Spanish, and Urdu(fig.25)—have revealed the same notable differences into the results of these three languages regarding episodic memory .The Tukey HSD test divided the three language cohorts into two subsets based on their scores: **subset 1** which included French with a significant lower score on episodic memory compared to the other two languages and **subset 2** encompassing Spanish and Urdu results which were not significantly different from each other. Due to the unequal group sizes, the harmonic mean of the group sizes (21.977) was used to adjust for potential biases. The high significance values (1.000 and 0.998) indicated that the differences within each subset were not significant at the alpha level of 0.05. The heritage value of the Urdu language may influence the slightly higher episodic memory scores, potentially adding a cultural dimension to these findings.

The table below(fig.26) presents the results of multiple comparisons using the Tukey HSD (Honestly Significant Difference) test for the EM, LML and resilience variables across three languages: Spanish, French, and Urdu. When compared, the three languages show different scores with French scoring consistently lower than other subjects.

Fig.26

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) language	(J) language	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
PosEM	Spanish	French	4.97778*	1.50816	.004	1.3744	8.5812
		Urdu	-.08889	1.33684	.998	-3.2829	3.1052
	French	Spanish	-4.97778*	1.50816	.004	-8.5812	-1.3744
		Urdu	-5.06667*	1.71009	.011	-9.1525	-.9808
	Urdu	Spanish	.08889	1.33684	.998	-3.1052	3.2829
		French	5.06667*	1.71009	.011	.9808	9.1525
GLMTotal	Spanish	French	6.41212*	1.61182	<.001	2.5601	10.2642
		Urdu	4.11688*	1.42983	.014	.6998	7.5340
	French	Spanish	-6.41212*	1.61182	<.001	-10.2642	-2.5601
		Urdu	-2.29524	1.82247	.422	-6.6507	2.0602
	Urdu	Spanish	-4.11688*	1.42983	.014	-7.5340	-.6998
		French	2.29524	1.82247	.422	-2.0602	6.6507
ResTotal	Spanish	French	.29275	1.24315	.970	-2.6767	3.2622
		Urdu	.49275	1.10112	.896	-2.1375	3.1230
	French	Spanish	-.29275	1.24315	.970	-3.2622	2.6767
		Urdu	.20000	1.41345	.989	-3.1763	3.5763
	Urdu	Spanish	-.49275	1.10112	.896	-3.1230	2.1375
		French	-.20000	1.41345	.989	-3.5763	3.1763
FLMTotal	Spanish	French	-1.35303	1.34724	.576	-4.5727	1.8667
		Urdu	-1.36255	1.19512	.493	-4.2187	1.4936
	French	Spanish	1.35303	1.34724	.576	-1.8667	4.5727
		Urdu	-.00952	1.52330	1.000	-3.6500	3.6310
	Urdu	Spanish	1.36255	1.19512	.493	-1.4936	4.2187
		French	.00952	1.52330	1.000	-3.6310	3.6500

*. The mean difference is significant at the 0.05 level.

Within the episodic memory analysis, the three languages were compared and results showed significant difference between Spanish and French (MD= 4.978, p=0.004) with Spanish recording a higher mean episodic score than French. Same applied for the difference between French and Urdu (MD= 5.067 and p=0.011) with Urdu having a higher mean episodic memory score. When comparing Spanish to Urdu, there no significant difference found p=0.998.

This could imply that the Spanish cohort had a more positive experience in their language learning endeavour while Urdu had an additional heritage aspect that stemmed not only from the classroom environment but also from family and friends. The French lower scores could be explained by the smaller cohort size that could have affected the results or by the language learning experiences.

For Growth Language Mindset, there was no significant difference between French and Urdu (p 0.422). A significant difference appeared between Spanish and French ($p<0.001$). Same significant difference was scored for Spanish when comparing to Urdu ($p=0.014$) with Spanish having a significant growth mindset score than the other two languages.

The results could be explained by the fact that the highest attainment was observed in the Spanish cohort. For instance, the highest grade (Grade 9) belonged exclusively to the Spanish group. The same applies to grade 8, where three out of the four students were Spanish. This leads us to believe that there is a strong relationship between growth mindset and attainment within the three groups. These findings mirror Molway and Mutton (2020)'s results which indicated a high correlation between attainment and growth language mindset. Caution needs to be considered when looking at this relationship where the correlation has been examined but the causation hasn't been established.

When analysing the differences between the languages for fixed language mindset, no significant correlation was found (Spanish vs French $p=0.576$; Spanish vs Urdu $p=0.493$; French vs Urdu $p=1.000$).

Within the resilience data, there were no significant differences between any of the languages which shows a very homogenous picture of this concept across the three languages (Spanish vs French $p=0.970$; Spanish vs Urdu $p=0.896$; French vs Urdu $p=0.989$).

Overall, within the EM analysis there were significant differences between Spanish and French and between French and Urdu, with Spanish and Urdu having higher scores than French. Regarding GLM, significant differences were found between Spanish and French and between Spanish and Urdu, with Spanish having higher scores than both French and Urdu. There were no significant differences between the three languages regarding resilience with the same results for the FLM.

4.6. Are there any correlations between resilience, language mindset and episodic memory across the three languages?

Fig.27

			Resilience	FLM	GLM	EM
	Resilience	Correlation Coefficient	1.000	-.271*	.175	.052
		p-value	.	.014	.117	.642
	FLM	Correlation Coefficient	-.271*	1.000	-.194	.031
		p-value	.014	.	.082	.784
	GLM	Correlation Coefficient	.175	-.194	1.000	.364**
		p-value	.117	.082	.	<.001
	EM	Correlation Coefficient	.052	.031	.364**	1.000
		p-value	.642	.784	<.001	.

*. Correlation is significant at the 0.05 level

**. Correlation is significant at the 0.01 level

The data above (fig.27)was analysed using Pearson correlation coefficient method assessing the strength and the direction of the relationship between the variables.

The correlations between resilience, fixed language mindset (FLM), growth language mindset (GLM), and episodic memory (EM) reveal significant insights into the interrelationships among these psychological constructs. Resilience shows a significant negative correlation with FLM ($r = -0.271$, $p = 0.014$), indicating that individuals with a fixed language mindset tend to exhibit lower resilience. This suggests that a rigid belief in one's language abilities being unchangeable may hinder one's ability to adapt and recover from challenges. Conversely, resilience has a non-significant positive correlation with GLM ($r = 0.175$, $p = 0.117$) and EM ($r = 0.052$, $p = 0.642$), where the relationships are not strong enough to reach statistical significance. The correlations highlight a significant positive relationship between GLM and EM ($r = 0.364$, $p < 0.001$), suggesting that individuals who believe in the potential for language improvement are more likely to have a robust episodic memory. This could imply that a growth mindset towards language learning enhances the ability to recall personal events, possibly by encouraging more active and engaged learning strategies. On the other hand, FLM does not show significant correlations with GLM ($r = -0.194$, $p = 0.082$) or EM ($r = 0.031$, $p = 0.784$), indicating that a fixed mindset regarding language abilities operates independently of one's episodic memory capabilities and does not

significantly overlap with a growth mindset. These findings collectively highlight the complex interplay between mindsets, memory, and resilience, highlighting the potential benefits of fostering a growth language mindset for enhancing both personal resilience and memory function.

4.7. Focus groups

The first focus group was comprised into three girls and two boys and the second group included three boys and three girls.

Some participants were more vocal than others with two boys in each focus group dominating the focus groups, despite efforts from the researcher to stir the direction of exchanges (Dörnyei,2007).

Their grades ranged from 2 to 9 and they were all EAL students with some having great attainment progress all school while some were new to English and were struggling academically.

Some students with lower motivation and engagement, came to reflective conclusions such:

Student 1(high prior attainment, buy underachieving in some subjects):'' *Failure is the recipe for success."*

Student 2: ''You need to develop a mindset to overcome barriers in your life, although some subjects so it's easier to become resilient."

Student 7(male, quite dominant in the focus group)":My biggest fear is not succeeding in life but this is a subjective matter. Putting more effort is important."

Student 2(male, second focus group, second year in England and relatively new to English) :" think family is important to push you, to believe in you. Miss, I think that the relationship with teachers and knowing that you are not good at a subject could influence how I react if get lower marks."

Student 3(female, high achiever in Spanish):"I think that the questionnaires were straightforward but then it really matters how well you cope in school …"

Student 5(male, dominant in the focus groups):" Some teachers really care about their subject and some think that they know better so if I am not good in Maths or a language I don't care as much as I would do it in History."

Student 5(male. expected high prior attainment but underachieving) :"The teachers and school leadership need to become more curious about students' issues because they think that they know the kids inside out, but it's not true."

In the focus groups, there seemed to be a clear corelation for some students regarding resilience and success although this wasn't apparent in the statistical analysis of data when looking at the BRS and attainment. This could be explained by students understanding the importance of effort before their official exams. Furthermore, this can be explained by responding in a way that would be favoured by the researcher and saying what they thought that it was expected of them.

''Failure is like a lesson it teaches you to become more resilient."

Student 3:"I think that failure is only when you have given up and you are not trying anymore."

Student 2: Sometimes I think that making mistakes could make feel a bit miserable.

Student 4(female): Well, honestly the questionnaires were relatable to the fact we were quite stresses with exams and we had quite a lot of the

Student 5: The more you study, the easier it becomes.

Evaluating the participants' responses, it is obvious that their experiences in lessons and the relationships with the teachers mattered a lot to them, associating more care and investment in subject with areas where they thought that they were good at or they had a positive experience.

Growth Mindset seemed to be closely linked, in the participants' views to resilience with the belief that making mistakes should be normal and lessons should be learnt to progress and improve performance.

These findings could incentivise teachers to think of a clear, specific but positive framework of giving feedback so that students feel motivated to close their gaps and increase their attainment. Further research would be necessary to dive into the appropriateness details included for every academic area and every age group. More focus

groups would have unveiled if there was any desire for consensus from these groups where some participants might have suppressed their true opinions to align to the group (Krueger and Casey,2014).

4.8. Summary of findings

In this chapter, the results were analysed in the order of the questions posed and parametric tests such as Pearson correlation, One-Way ANOVA, and Tukey's HSD were used to examine the correlations between resilience, language mindset, episodic memory and attainment. Additionally, it evaluated the differences and relationships between the language groups. The Pearson correlation analysis confirmed the relationships between Episodic Memory, Growth Mindset and attainment, while the One-Way ANOVA identified significant differences among the groups with the French cohort scoring significantly lower across the board comparing to Spanish and Urdu. French scored slightly higher only in the FLM tests.

Overall, results showed that there was no significant correlation between resilience, fixed mindset and attainment. Conversely, positive correlation was revealed between positive episodic memory, growth mindset and attainment. Furthermore, findings indicated some weak positive correlations between Urdu and experiences around visiting a country where the language is being spoken, followed by the similar results in Spanish. Although, there was no established link found between resilience and growth mindset, data has shown a negative relationship between resilience and fixed mindset which highlights the importance of beliefs in situations where students have to recover, face obstacles, fail and persevere.

Two focus groups composed of five students each discussed the concepts analysed above and some discrepancy appeared between their tests, observed classroom behaviour and self-reported language mindsets. This difference could be justified by students' propensity to talk about their ideal self and future research should consider scrutinising the robustness of self-reported concepts and language proficiency levels when evaluating data captured in this sole manner.

The students highlighted the importance of resilience and persistence of effort, although the data analysed doesn't show any correlation between the growth language mindset and resilience or resilience and grades. Nevertheless, results revealed a small

negative correlation between resilience and fixed language mindset which could suggest that lack of self-belief may reduce the potential to adapt and bounce back when faced with difficulties in language learning.

In the next chapter, I will discuss the summarise the research aim and findings, I will evaluate the limitations of this study and I will explore potential avenues for future research.

CONCLUSION

5.1. Overview of the study and findings

In this research I aimed to untangle and explore the complex link between factors such as resilience, language mindset and previous language learning experiences and uncover their relationship with language achievement. The research questions stemmed from my immediate educational environment needs and from my frustration as an educator with the scarcity of studies relevant for language teachers with disadvantaged, teenage, EAL students. Understanding the role of motivation and the impact of affective and psychological factors on language performance, this study weaved, for the first time, three established questionnaires: the Brief Resilience Scale (Smith et al, 2008), an adapted version of Language Mindset Inventory (Lou and Noels (2017) and a slightly modified version of the Episodic Memory Questionnaire Blair and Azaz, 2019). The purpose was to investigate, from different angles, the fascinating and intricate relationship between the ability to bounce back from adversities, the two different types of language mindset: incremental and fixed and the impact of previous experiences on students' motivation and official attainment, all anchored in a specific cultural, socio-economic, biological and cognitive background where age and different stages of L1 and L2 development(English proficiency and MFL grades) were also part of the participants' characteristics .

The first question inquired about the existence and the extent to which there was a correlation between language mindset and attainment. Due to previous research showing the difficulty to group the two language mindsets together, the results were analysed and presented by type of language mindset. In the analysis of the fixed language mindset no statistically significant relationship was found with grades. This was in line with other studies such as Collett and Berg (2020) indicating that a fixed mindset on its own is not a significant predictor of attainment and that other aspects such as cultural and linguistic aspects might influence students' performances in these tests.

Regarding the correlation between the growth of language mindset and attainment, a moderate to statistically significant relationship was found, particularly GLM12(No matter how language intelligence I have, I could always change it quite a bit). Not all growth mindset measures are equally predictive of grades and more research will

need to be conducted to uncover the complex relationship between psychological constructs and academic performance. These present results confirm some of the previous research findings (Collett and Breg, 2020; Molway and Mutton, 2020, Khajavy, MacIntyre and Hariri 2021;Jiang , Yue and Lou Mantou, 2024). Furthermore, it explains the significant role of the incremental language mindset in the second language acquisition journey towards a proficient level.

The second question inquired on the existence of any link between episodic memory and attainment. It also hypothesised that the Urdu cohort might register superior scores due to heritage value of the language studied. The analysis revealed that certain episodic memory measures, particularly EM8 related to success in communication in the language studied, showed a moderate and significant positive correlation with academic performance (grades), suggesting these measures are relevant to understanding and potentially improving academic outcomes. Spanish and Urdu scored significantly higher than the French group in this questionnaire. Urdu had marginally higher results than Spanish but this difference was not significant. The slightly higher scores for Urdu could reflect a heritage value, emphasising the potential cultural influence on episodic memory.

The third question examined if there was any relationship between resilience and MFL grades, evaluating its extent. The findings indicated that the relationship between resilience and academic grades was minimal and statistically insignificant. Therefore, resilience did not appear to be a key determinant of academic performance in this sample. This suggests a need for a broader approach to understand the various contributors that lead to student success.

The fourth and last question examined the difference between the three languages studied within resilience, EM and mindset. A multiple comparison analysis revealed significant differences in episodic memory and incremental mindset (GLM)across the three languages with Spanish and Urdu scoring higher than French. Spanish presented significantly higher GLM scores than French and Urdu. Nevertheless, there were no significant differences observed in Resilience or Fixed Language Mindset among the three languages. This could be linked to the status of the language studied (Dörnyei and Csizér 2002; Dörnyei 2005) but also it may be related to the participants'

intrinsic values and traits or other background related factors such as family history, cultural and socio-economic status, age and language proficiency.

Regarding the correlation between the mindset, resilience and episodic memory, data showed a strong relationship between some of GLM items and EM which suggests that positive past memories are interconnected with a high self-belief and the propensity to improve language levels. Conversely, a negative correlation was revealed between resilience and fixed-mindset, indicating that students with a lower self-belief in their ability to improve will give up faster in the assiduous process of learning a foreign language.

The second part of the study had qualitative nature and it used focus groups as a method to clarify and expand some of the students' responses in the survey. It sought to give a voice to the participants and uncover underlying factors that could not be captured in the questionnaires such as the clarity of the questions, the participants' opinions and suggestions about the questions asked, their views about the concepts' measures. The majority of students suggested that they valued the role of resilience and growth mindset. In addition, there was a consensus over the importance of the teacher-student relationship which wasn't necessarily mirrored in the episodic memory question about the importance of praise and teacher's feedback. The same discrepancy applied to the data related to resilience. However, the growth language mindset and the episodic memory correlated with attainment and it mirrored students' views.

Some of the differences could be explained by students possibly using ideal-self language projections to answer questions about resilience and possibly the relationship with the researcher could have influenced them to respond in an expected or desirable way. Therefore, more research will be needed to evaluate the robustness of self-reported concepts measured in this way.

5.2. Limitations to the findings

This was a study that combined for the first time the resilience brief scale, an adapted version of language mindset inventory and the episodic memory questionnaire, to scrutinise any correlations between non-cognitive factors of metacognition and attainment. Due to the nature of its design, this cross-sectional study could pinpoint some correlations but could not reveal any causation between the concepts investigated.

Further longitudinal research will uncover the true relationship between the factors examined and attainment.

The LMI was adapted and a piloting stage would have mitigated the reliability of the instruments adapted. This wasn't possible due time restrictions with participants needed to be present in revision and exam sessions. Moreover, there is a debate around the impossibility of dividing language mindset in rigid concepts such as growth and fixed mindset with critics arguing that the language mindset is a fluid and ever-changing concept that cannot be captured with precision and accuracy. Some argue that this dichotomy, although not ideal, is useful when measuring abstract concepts such as language mindset. The FLM scale had a very poor reliability score and more pilot testing would have refined and improved the scale used enhancing its reliability thus the reliability of the findings in this study. The concept was kept in the study due to its high relevance to the research's goals.

There is some doubt around how a few students interpreted these questionnaires and whether they didn't choose an aleatory answer. This uncertainty stems from classroom observations and students' general language attitude in lessons. The same is applicable to a few students in the focus groups who gave very idealistic answers which were not exactly mirroring some of their language behaviour and attitude in lessons. More work has to take place in disseminating if participants were not making random choices in Likert type of surveys. When a number of students complete these types of questionnaires, more robust quantitative methods might elucidate veracity of these responses.

Some classroom teachers were more collaborative than others with the French cohort being the smallest due to their teacher's reluctance to fully embrace the investigation while the Spanish cohort was the largest due to the researcher's direct contact with them. This shows how difficult it is at times, for the research investigators to gain access into an institution and incentivise classroom teachers to collaborate.

Regarding the focus groups, questions could arise whether participants might have expressed their genuine views and opinions and whether they could have omitted certain contentious views due to the researcher's status as a school staff and not an external investigator. Another consideration when evaluating students' views in the

focus group, is that students could have discussed about an ideal self or ought to be self and not their actual self when talking about resilience and language mindset.

More research will need to be conducted in similar contexts to validate these self-reported findings which were moderately triangulated with two small focus groups. Therefore, these findings from focus groups are not easily generalizable due to the small, non-random sample sizes typically involved.

5.3. Implications and recommendations for future research

Results indicate a strong correlation between attainment and previous success in using language studied when communicating. Further investigation is required to capture the potential pedagogical implications for language learning and teaching. This investigation will contribute to refining what useful and impactful praise looks like for students, adding to an already growing literature around language learning.

A thought-provoking finding was the positive relationship between GLM and EM which could invite an exploration of the way the growth mindset can be incorporated in language classes through metacognitive processes related to reflection, teacher-student discussions, goal setting, academic performance review.

The negative correlation between resilience and fixed mindset indicates that for students to be engaged in the long process of language learning, they need to believe that they are capable of changing their ability to communicate in a language and to experience success. This requires a reconsideration of the language teaching methods and of what constitutes successful long-term language learning.

Further research in similar contexts will be necessary to validate this study's findings. The final note of this study is an invitation for future research to capture a more inclusive range of perspectives in the language motivation field, thereby broadening the pedagogical implications for both teachers and their most underrepresented language learners.

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Appendix A

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Sorina Radu
Department of Education, Social Sciences Division
University of Oxford

23 March 2024

Dear Sorina,

Research ethics approval

Research title: Interplay Between Students' Language Mindsets, Episodic Memory, and Academic Achievement in a Multicultural Secondary School

Research ethics reference: EDUC_C1A_24_108

The above application has been considered on behalf of the Education Departmental Research Ethics Committee (DREC) in accordance with the University's procedures for ethical approval of all research involving human participants.

I am pleased to confirm that, on the basis of the information provided to the DREC, ethics approval has now been granted for this study.

Please note the following:

Personal data: It is the responsibility of the PI to ensure that all personal data collected during the project is managed in accordance with the University's guidance and legal requirements.

In-person activities: Any data collection involving in-person interactions with participants must have an up-to-date fieldwork risk assessment in place; further guidance is available from the Safety Office's website.

Amendments: Please notify the committee if you intend to make any amendments to the information in your ethics application as submitted at date of this approval, as all changes must receive ethical approval prior to implementation. The amendment form is available on the SSH IDREC webpage.

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to staff.curec@education.ox.ac.uk / student.curec@education.ox.ac.uk or ethics@socsci.ox.ac.uk.

Yours sincerely

Dr Gary Snapper

DREC member

cc: Dr Heath Rose

Appendix B Instruments used

Brief Resilience Scale (BRS)

Please respond to each item by marking one box per row		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
BRS 1	I tend to bounce back quickly after hard times	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
BRS 2	I have a hard time making it through stressful events.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
BRS 3	It does not take me long to recover from a stressful event.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
BRS 4	It is hard for me to snap back when something bad happens.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
BRS 5	I usually come through difficult times with little trouble.	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
BRS 6	I tend to take a long time to get over set-backs in my life.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1

Scoring: Add the responses varying from 1-5 for all six items giving a range from 6-30. Divide the total sum by the total number of questions answered.

My score: _____ item average / 6

Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine*, *15*(3), 194-200.

Language Mindset Inventory

adapted from Lou and Noels (2017), Blair and Azaz(2019)

Fixed language mindset

1- I have a certain amount of language intelligence, and I can't really do much to change it.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

2- My language intelligence is something that I can't change very much.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

3- Usually, a person's biological factors (e.g., brain structures) determine his or her abilities to learn new languages.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

4.- It is difficult to change how good I am at foreign languages.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

5.- Many people will never do well in foreign languages even if they try hard because they lack natural language intelligence.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

6.- How well a person speaks a foreign language depends on how early in life he/she learned it.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

7- Even if I try, the skill level I achieve in a foreign language will advance very little if I learn it when I am an adult.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

Growth language mindset

10- No matter who I am, I can significantly change my language intelligence level.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

11- I can always substantially change my language intelligence.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

12- No matter how much language intelligence I have, I can always change it quite a bit.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

13- I can always change my foreign language ability.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

14- In learning a foreign language, if I work hard at it, I will always get better.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

15- How good I am at using a foreign language will always improve if I really work at it.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

16- Everyone could do well in a foreign language if they try hard, whether they are young or old.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

Episodic memory (10 items) used after Blair and Azaz (2019)

1. I remember a time when I felt happy successfully using Spanish/Urdu/French in the classroom.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

2. I remember a time when I was overjoyed getting a good grade on my Spanish/Urdu/French homework/test.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

3. I remember a time when I felt bad making a mistake in Spanish/Urdu/French class (e.g. speaking, reading aloud).

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

4. I remember a time when a teacher/classmate praised me in Spanish/Urdu/French class.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

5. I remember a time when a classmate was negative to me in Spanish/Urdu/French class.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

6. I remember a time when I traveled and enjoyed visiting a Spanish/Urdu/French-speaking country.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

7. I remember a time when I made a mistake using Spanish/Urdu/French in communicating with others.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

8. I remember a time when I was successful communicating in Spanish/Urdu/French with others.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

9. I remember a time when my parents looked down on me after getting a bad grade on a Spanish/Urdu/French assignment/test.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

10. I remember a time when I traveled and had a bad experience visiting a Spanish/Urdu/French-speaking country.

1	2	3	4	5	6
Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree

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QUALITATIVE METHODS

for a sample of students (FRENCH, SPANISH AND URDU cohort)- purpose to clarify participants' perspectives, give them a voice, seek feedback etc

1. What did you think about the questionnaire?

2. Would you add or change anything?
3. Can you expand on these answers (looking back at their answers)?

   Extra questions around Lou and Noels (2019) idea of failure, attribution- to formulate them in a child-friendly way

	Fixed-oriented subsystem	Growth-oriented subsystem
Effort beliefs: What does effort mean?	**Negative:** effort is futile, and exertion of effort reflects one's lack of natural talent	**Positive:** effort is the key to improvement and a means to become talented
Attribution: What causes different learning outcomes?	**Uncontrollable:** interpret successes to one's own talent and failures to the lack of natural ability	**Controllable:** interpret success to hard work and challenges/mistakes to the insufficient effort
Achievement goals: What are your goals for your learning activities?	**Performance goals:** aim to out-perform others and validate ability (when perceived competence is high) or avoid being seen as incompetent (when perceived competence is low)	**Mastery goals:** aim to develop and improve language competence; focus on the learning process
Failure/mistake mindsets: What does failure mean?	**Failure as debilitating:** Failure or making mistakes inhibits one's learning and debilitates one's performance; one should avoid failure or making mistakes in order to learn and perform well	**Failure as enhancing:** failure or making mistakes provides opportunity to understand what is needed and to facilitate improvement; one should take advantage of failure to learn and grow
Self-regulatory tendency: What do you tend to do when dealing with setbacks?	**Self-defensive strategies:** avoid similar situations to protect self-esteem	**Self-improvement strategies:** seek for better learning strategies and feedback to improve
Competence-based emotional tendency: How do you tend to feel about your language ability in challenging tasks?	**Anxiety:** afraid of challenges and failure; anxious to use the target language and fear of being judged/ rejected	**Confidence:** enjoy difficult tasks; confidence to use the language and to develop competence

Lou, N. M., & Noels, K. A. (2017). Measuring language mindsets and modeling their relations with goal orientations and emotional and behavioral responses in failure situations. *Modern Language Journal, 101*(1), 214–243. https://doi.org/10.1111/modl.12380

Appendix C Letter to Headteacher

24th March 2024

INTERPLAY BETWEEN STUDENTS' LANGUAGE MINDSETS, EPISODIC MEMORY, RESILIENCE AND ACADEMIC ACHIEVEMENT

Ethics Approval

Dear Miss Jones,

I am writing to request permission to conduct some research in school during this academic year. I am a master student at the University of Oxford, supervised by Professor Heath Rose, the Director of People of the Department of Education. In my research study, I will explore the interplay between emotions and mindset and the role of resilience in our students.

The research will take place with year 11 and I am not aiming to change what or how the teachers choose to teach, and will not be making any judgements about teaching. My research focus is to uncover the importance of non-cognitive and affective factors on language learning motivation. By participating in the research, your school would be contributing to research that will expand the field of language learning motivation and regulation.

The commitment from the school would be to allow me into give the attached questionnaire to students during school time. The questionnaire will not require more than five minutes from their time. I would audio-record a small group of students engaged in interviews, observe and take notes, and give them questionnaires.

Oxford University has strict ethical procedures on conducting ethical research with teachers and students, consistent with current British Educational Research Association guidelines. Before beginning the research, I would inform parents/guardians about the research and offer the students and parents/guardians the opportunity to refuse to participate. Throughout the research, students and parents/guardians will be able to refuse to participate at any time.

All participants, including students, teachers and the school, would be made anonymous in all research reports. The data collected would be kept strictly confidential, available only to my

supervisor and myself and not used other than specified without the further consent of all involved being obtained. All recordings would be destroyed at the end of the research period, and kept in locked conditions until then. I have enclosed copies of the information for parents/guardians and students with this letter.

Whether or not you feel it would be appropriate for the school to participate, I would be grateful if you would complete the pro-forma below, and return it to me by email.

Thank you for your time and attention. I look forward to hearing from you.

Yours Sincerely,

Sorina Radu

INTERPLAY BETWEEN STUDENTS' LANGUAGE MINDSETS, EPISODIC MEMORY, AND ACADEMIC ACHIEVEMENT IN A MULTICULTURAL, DISADVANTAGED SECONDARY SCHOOL

Sorina Alina Radu

Department for Education

Natalie Jones

☐ We do not wish to participate in this project.

☐ We would like to find out more about this project.

☐ We would like to take part in this project.

If you would like further information, or are interested in taking part, please give the name of a contact person for your school, and details of the best way to contact him or her.

Contact name: _____

Contact email: _____

Contact telephone number: _____

Please return this form in the stamped addressed envelope enclosed with this letter.

Thank you for your help.

Study Code: *Site ID Code:* *Participant identification number:*

CONSENT FORM

The relationship between mindset, resilience, classroom experiences and exam results in Languages

Name of Researcher: *Sorina Alina Radu*

I confirm that I have read the information sheet for this study. I have had the opportunity to consider the information, ask questions, and have these answered satisfactorily.		
1. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected.		
2. I agree to the focus group being audio recorded.		
3. I agree to take part in this study.		
Additional:		
I agree for my samples to be used, in a form that does not identify me, in future research here or abroad, which has ethics approval. I understand this research may involve commercial organisations.	Yes	No

Name of Participant *Date* *Signature*

Name of Person taking Consent *Date* *Signature*

When completed: 1 copy for participant; 1 for researcher site file (original); 1 copy to be kept in medical notes (*if participant is a patient*)

Appendix D

Appendix E Letter to participants, parents and consent forms

Consent to take part in the study investigating if there is any relationship between mindset, resilience, language learning experience and academic achievement

Central University Research Ethics Committee (CUREC) approval reference:
EDUC_C1A_24_108

Purpose of Study:
To check if there is any link between mindset, resilience, language experience and academic achievements

Introductory paragraph

You are being invited to take part in a research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part.

Why is this research being conducted?

I am conducting a study about the relationship between mindset resilience and language experience.

Through this study, I would like to find out more what particular factors contribute to exam results, in your opinion and whether having a certain mindset is important towards your academic achievement. I will also check if there is any link between resilience and academic results

Why have I been invited to take part?

You have been identified as part of the Modern Foreign Languages year 11 cohort.

The student participants need to be aged 16 be recruited for the focus group.

Do I have to take part?

No. It is up to you to decide whether to take part. You can withdraw yourself from the research, without giving a reason, and without negative consequences, by advising me/ us of this decision.

The deadline by which you can withdraw yourself from the participation of the project is 15/04/24.

The deadline by which you can withdraw any information you have contributed to the research is 1/6/2024. I will not use the data provided by you if you indicate your intention to withdraw yourself from the research.

What will happen to me if I take part in the research?

This section should explain what will be involved in your research from a participant's point of view, and in the order, they will experience it. This should include:

The research will take place at [redacted]

- After reading through the Participant Information Sheet, you will be given at least three days to decide if you wish to take part in the research. Once you decide to take part in the research and sign the consent form, the research will approach you and talk to you about when it is best for you to have focus groups for data collection.
- Each student participant, together with other student participants, will engage in a focus group which may last for 20-50 minutes.
- During focus group discussions, student participants will be asked to discuss certain issues mindset, effort, residence in and motivation to learn a language. The researcher will act a moderator throughout the discussions.
- Before each focus group discussion, the researcher will clearly say the following sentences to the student participants: I am about to record the discussion for this study. Before I start audio recording, I would like you to indicate your agreement once again, whether through nodding or saying a few words. And, whenever you feel, you would like to me to stop recording or pause the recording for whatever reasons you may have, you can and should do so.
- If the researcher finds it necessary to have follow-up sessions, he will approach you in person for clarification. The follow-up sessions are expected to last for no more than 10 minutes. Note that you can decline to have the follow-up sessions without having to give a reason or to face negative consequences.

Are there any benefits in taking part?

There will be no direct or personal benefit to you from taking part in this research.

What information will be collected and why is the collection of this information relevant for achieving the research objectives?

I am interested in your perceptions of mindset, resilience and experiences in language learning.

The words you say during the focus group discussions will be used as data. Your body language and/or your interaction with other student participants during the discussions may also be used as data.

The researcher, and the researcher's supervisor for this study will have access to the research data.

Identifiable data, including consent forms, will be stored electronically in a password-protected document in the researcher's password protected laptop, and the research data will be stored for 3 years after publication or public release of the work of the research.

I may use this data in future studies.

Measure (e.g. the use of fake names to replace their real names) will be taken to ensure that the participants will be unidentifiable from this data.

Will the research be published? Could I be identified from any publications or other research outputs?

The findings from the research may be written up in a dissertation/academic publication, or used for a conference presentation. The participants will be made unidentifiable from the outputs.

A copy of my dissertation will be deposited both in print and online in the Oxford University Research Archive where it will be publicly available to facilitate its use in future research/ its access will be restricted.

Data Protection

The University of Oxford is the data controller with respect to your personal data, and as such will determine how your personal data is used in the research. The University will process your personal data for the purpose of the research outlined above. Research is a task that is performed in the public interest. Further information about your rights with respect to your personal data is available from the University's Information Compliance web site at https://compliance.admin.ox.ac.uk/individual-rights.

Who has reviewed this research?

This research has received ethics approval from a subcommittee of the University of Oxford Central University Research Ethics Committee. (Ethics reference: **EDUC_C1A_24_108)**.

Who do I contact if I have a concern about the research or I wish to complain?

If you have a concern about any aspect of this research, please contact the following people.

The name of the researcher: Sorina Alina Radu

Email: sorina.radu@ox.ac.uk

The name of the researcher's supervisor: Heath Rose

Tel. no: 01865274033

Email: heath.rose@education.ox.ac.uk

We will do our best to answer your query, and we will acknowledge your concern within 10 working days and give you an indication of how it will be dealt with. If you remain unhappy or wish to make a formal complaint, please contact the Chair of the Research Ethics Committee at the University of Oxford who will seek to resolve the matter as soon as possible:

The Chair, Social Sciences & Humanities Interdivisional Research Ethics Committee;
Email: ethics@socsci.ox.ac.uk; Address: Research Services, University of Oxford, Boundary Brook House, Churchill Drive, Headington, Oxford OX3 7GB

Further Information and Contact Details

If you would like to discuss the research with someone beforehand (or if you have questions afterwards), please contact:

The name of the primary researcher: Sorina Alina Radu Department of Education,
sorina.radu@ox.ac.uk

Consent for questionnaires

I understand how to raise a concern or make a complaint.	
I confirm that I have read and understand the information sheet version or the above research. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any point without giving any reason.	
I understand who will have access to personal data provided, how the data will be stored and what will happen to the data at the end of the project.	
I understand that I will not be identifiable from any publications	
I agree to take part.	

This is an opt out option consent

I would like that my young person /child to opt out from this study
/I would like to opt out from this study

Name of the child_____

Parent/Carer's name_____

Date_____

Signature_____

Focus group consent(only)

	Please initial each box if you agree with the statement
I confirm that I have read and understand the information sheet version or the above research. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.	
I understand that my participation is voluntary and that I am free to withdraw at any point without giving any reason.	
I understand who will have access to personal data provided, how the data will be stored and what will happen to the data at the end of the project.	
I understand that I will not be identifiable from any publications	
I consent to being audio recorded.	
[If applicable] Use of quotations: Please indicate your preference (select *one* option):	
a) I do not wish to be quoted. **or**	
b) I agree to the use of quotations in research outputs if I am not identifiable. **or**	
[If applicable] I give permission for you to contact me again to clarify information.	
I understand how to raise a concern or make a complaint.	
I agree to take part.[1]	

[1] In certain projects researchers may want to add an additional statement: [I hereby assign to the researcher all copyright in my contribution for use in all work stemming from this project and future projects.]