Developing Growth Language Learning Mindsets to Facilitate Motivation and Academic Achievement Among Chilean Learners of English

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Abstract

Prior research has shown that growth mindsets—the belief that ability can be enhanced by effort—positively impact motivation and learning. However, no studies have investigated whether language mindsets can change and, in turn, influence language learning motivation and academic achievement. The present study examined the relationship between students' language mindsets and three variables: L2 motivation, academic achievement and teachers' mindsets. Also, it investigated whether online sessions encouraging growth language mindsets could change participants' mindsets and motivation and whether English lessons with a growth mindset orientation could improve learners' academic achievement.

Eighty-six Chilean secondary-school students aged 14-18 participated in this one-group pre-test and post-test design. They completed twelve sessions to develop growth language mindsets, including information to promote a general growth mindset, language learning-related beliefs and strategies to learn a new language. In this mixed-methods research, students answered pre-, post- and delayed post-questionnaires (taken before, after and three months after the sessions) and diary entry questions throughout the process. Besides, students participated in twenty-four growth mindset-oriented English lessons and answered pre-and post-tests to assess achievement improvement.

Post-questionnaires and diary entry responses showed that the sessions significantly increased students' language mindsets in the short and long term. Results demonstrated a statistically significant correlation between language mindset and motivation. The sessions also greatly enhanced L2 motivation in the short term. However, the delayed post-questionnaire revealed that L2 motivation was not sustained over time, suggesting that teachers should constantly promote and support students' growth language mindsets to keep them motivated.

Students' and teachers' language mindsets were not associated. Likewise, no relationship was found between language mindset and achievement. However, English classes with a growth mindset orientation caused a statistically significant improvement in participants' achievement. This study offers guidance towards fostering growth language mindsets to facilitate learners' L2 motivation and learning.

COVID-19 Impact Statement

The COVID-19 pandemic had a significant impact on this research, particularly regarding participant recruitment, study design, and data collection methods. The restrictions on social gatherings imposed during the pandemic resulted in limitations on the number of participants that could be included in the study. Furthermore, the shift from face-to-face data collection to online modalities presented new challenges in engaging participants effectively. As a result, adjustments were made to the study design, necessitating a shift from the originally planned experimental design to a one-group pre and post-test design. Despite these unprecedented challenges, I persevered with the research. I adapted to the circumstances by exploring alternative methods for data collection and modifying the research design to accommodate the reduced number of participants. The methodology chapter of this research provides a detailed account of the challenges encountered due to the COVID-19 contingency and the specific modifications made to the original research plan.

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I would like to dedicate this work to all the learners who have ever been told they cannot learn or do something. I hope this contribution helps language teachers change incorrect language learning beliefs and help students believe in themselves and work hard to fulfil their dreams.

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List of Abbreviations

ASB	Age Sensitivity Beliefs
CEFR	Common European Framework of Reference for Languages
EFL	English as a Foreign Language
ELT	English Language Teaching
EODP	English Opens Doors Program
FSM	Free School Meals
GLB	General Language Beliefs
GPA	Grade Point Average
KET	Key English Test
LMI	Language Mindset Inventory
LMMS	Language-Mindset Meaning System
L2	Second Language
L2B	Second Language Learning Beliefs
L2MSS	L2 Motivational Self System
L3	Third Language
PET	Preliminary English Test
PIS	Participant Information Sheet
PISA	Programme for International Student Assessment
Q	Questionnaire
Q1	Questionnaire 1
Q2	Questionnaire 2
Q3	Questionnaire 3
RQ	Research Question
SES	School Engagement Scale
SLA	Second Language Acquisition
SLL	Second Language Learning

SDT	Self-determination Theory
SPSS	Statistical Package for Social Science
STEAM	Student-TEAcher-Mindset
TA	Thematic Analysis
TESOL	Teaching English to Speakers of Other Languages
WHO	World Health Organization
WTC	Willingness To Communicate

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Chapter 1: Introduction

1.1 Introduction

The main topic of this research is language learning mindsets. This first chapter starts by providing an overview of the background of language mindset research to contextualise the assumptions behind the growth mindset theory. Then, I refer to my personal motivation, which inspired me and drove all my energy and effort to conduct this research. The purpose of the investigation and its significance are described next. Finally, an outline of each chapter is presented.

1.2 Background and Rationale of the Study

This research investigates language mindsets. Mindsets involve beliefs about intelligence or ability; specifically, language mindsets concern the beliefs about language ability. To better understand language mindsets—the main topic of the present study—this section will provide background information on the two main concepts related to mindsets: beliefs and intelligence, which will repeatedly appear throughout the thesis. Understanding how these concepts relate to education and influence language learning will help understand the significance of language mindsets.

1.2.1 Beliefs in Language Learning

Williams et al. (2015) state that language learning beliefs refer to the beliefs that we have concerning "the nature of and processes involved in teaching and learning a foreign language, as well as about our own capabilities" (p. 61). The authors also state that a big problem arises when individuals confuse strong beliefs with knowledge or facts. These beliefs, which affect how we approach second language learning and teaching, can help us obtain successful learning but also, on the contrary, can inhibit learning (Williams et al., 2015). Teachers can help to reconsider

incorrect beliefs about language learning; however, this depends on the level of certainty of these beliefs. The more certain individuals are about their beliefs, the more difficult it is for the teacher to encourage them to change them and vice versa (Williams et al., 2015).

Williams et al. (2015) explain that contextual factors influence our beliefs in various manners. At the macro level, educational cultures; at the micro level, teachers and peers; and at the interactional level, the specific interactions with particular people. They also point out that every society has and values its own particular beliefs, which individuals learn through socialisation. Individuals are exposed to these beliefs since they are born, and as these beliefs are reinforced throughout their lives, they are the most stable and resistant to change. Therefore, these researchers suggest that language teachers should recognise and integrate the typical language learning beliefs associated with learners' culture to understand them. However, they also mention that individuals within the same cultural background do not share precisely the same beliefs because other factors influence them, such as family, social relationships and specific situations and interactions. For example, schools and classrooms are places where beliefs can be affected; consequently, teachers are responsible for generating an environment that influences facilitative beliefs [1]about language learning.

Beliefs can change over time. Such development shows the cognitive changes that individuals go through in their lives. Williams et al. (2015) explain that these changes occur gradually as individuals confirm the authenticity of their beliefs through their personal experiences and social interactions. They claim that teachers can help in this process by promoting questioning negative beliefs and reinforcing positive ones.

[1] Facilitative beliefs are beliefs that positively influence language learning.

Individuals' awareness of their beliefs can be classified into explicit and implicit beliefs. Explicit beliefs are the ones we are conscious of and can verbalise, while implicit beliefs are the beliefs we are unaware of; however, they affect our behaviour as much as our explicit beliefs do (Williams et al., 2015).

Dweck (1999, 2017) and her colleagues have researched implicit beliefs in the educational field. Dweck recognises two sets of beliefs related to learning: entity and incremental theories. People with an entity theory believe that intelligence and learning capacity are determined at birth. People with an incremental theory believe that people can develop their intelligence through effort and practice. Other terminologies for entity and incremental theory are fixed and growth mindsets. Growth mindsets are believed to help individuals to learn because they recognise that effort is vital to improve their competencies (Williams et al., 2015). On the other hand, fixed mindsets can limit individuals' capacities as they do not believe in improvement (Dweck, 1999, 2017).

1.2.2 Intelligence in Language Learning

Dörnyei and Ryan (2015) explain that in the L2 learning context, different authors use the terms language ability, language aptitude and verbal intelligence to refer to learners' potential to acquire skills or new knowledge. They state that the specific ability to learn a new language has received different names, such as talent, language aptitude, innate ability, natural ability and gift for L2 learning. In second language learning, aptitude is distinguished as individuals' cognitive strengths during the learning and performance of a second language in different circumstances and levels (Robinson, 2005). Lightbown and Spada (2011) state that language learning aptitude refers to specific abilities that are believed to predict language learning success.

Dörnyei and Ryan (2015) and Lightbown and Spada (2011) state that successful language learning depends on many factors, including language aptitude. Lightbown and Spada (2011) specify that individuals' personalities, learning styles, willingness to communicate (WTC), anxiety, self-esteem, motivation and beliefs are some other factors that affect second language learning (SLL). Dörnyei and Ryan (2015) also recognise that language aptitude has commonly been viewed as an essential factor that affects L2 learning. For example, Ehrman and Oxford (1995) found that aptitude measures were the variables that most firmly correlated with language proficiency. Ganschow and Sparks (2001) studied many cases of young adults who found it extremely hard to learn a new language. They concluded that most of them performed poorly in at least one of the aptitude tests, and some of them had verbal ability difficulties. Nonetheless, they found that some of these individuals succeeded, despite their challenges, with much effort and pedagogical support.

Some researchers suggest that in SLL, age can affect language aptitude. For example, the "critical period hypothesis" proposes that there is a time in which the brain is predisposed to language learning (see Dörnyei, 2009a). Nonetheless, other investigators such as Carroll (1981) have found that language aptitude tends to be the same over the years. Lightbown and Spada (2011) state that some studies demonstrate that in the first phases of SLL, older individuals can be more competent than younger people. Other investigations suggest that different components of language aptitude are developed at different ages. For example, Harley and Hart (1997) found that young children could develop memory components, whereas older learners were better at language analysis.

Williams and Burden (1997) state that even though there is a lot of written information about intelligence, most teachers are still confused. They claim that the view that intelligence is

fixed causes selection procedures at school. Intelligence is therefore viewed as a predictor of school success and failure; individuals who have difficulties at school or fail at school are believed to lack intelligence. These views of intelligence do not contribute to education. Educators need to spread the belief that ability can develop and that individuals' intelligence can grow through effort. Individuals who see intelligence as potentially changing and increasing, focus on their task and try to employ different strategies to accomplish SLL. They tend to invest more energy and effort into learning new things regardless of difficulty.

The dynamic of the interpretation of intelligence has influenced education, schools and societies. Fontana (1995) states that it is imperative to eliminate the idea that intelligence is a fixed characteristic of individuals. He argues that intelligence is "a fluid, flexible, problem-solving cognitive process that interacts continually with the outside world" (p.109). Dweck (1999, 2017) argues that theories of intelligence influence the manner educators and learners view the learning process. Theories that postulate intelligence as something that cannot change affect the manner organisations and educators treat individuals. This perspective causes segregation, and learners who are not "genius" believe they have limitations and do not try hard to learn.

Dweck (2017) has investigated the effects that the theories of intelligence (mindsets) can have on learners and found that they can profoundly affect individuals' goals, effort, responses to failure and success, and achievement. In different investigations, she has identified that people who see intelligence as being unable to change tend to avoid challenges and effort. On the contrary, individuals who see that intelligence can change and grow tend to value effort as a tool to face challenges. Dweck (2017) also found that theories of intelligence were connected to students' achievement. An incremental view of intelligence can create eagerness for challenges

and learning, improving student outcomes. In short, theories of intelligence can have a huge impact in the educational context (this topic is discussed in detail in the next chapter). The above studies also show that theories of intelligence are able to change through interventions; therefore, they are a powerful tool that can be used to influence individuals in their learning process.

1.3 Personal Motivation

After getting my undergraduate degree as a teacher of English as a second language, I worked for seven years in a semi-private school in a rural area of Chile, teaching English to secondary-school students. During those years, I put into practice all I had learned in my classes at the university and gained a lot of experience from other teachers and my own reflections as a teacher. I was able to help most of my students to progress in their English development by working hard at designing engaging and high-quality lessons. However, I was not satisfied as, despite my efforts, some students did not care about English and did not improve their language learning. I decided to come to the United Kingdom (UK) with the dream of upgrading my knowledge and learning new tools that would allow me to help those students who struggle the most.

My motivation to investigate the impact of growth language mindsets in the Chilean context was initiated while studying for my master's degree in TESOL. I was lucky to enrol myself in the optional module: Topics in the Psychology of Language Learning and Teaching. This became my favourite class, as I realised that language learning psychology was indispensable for successful language learning and teaching. Sometimes I felt proud of myself when I realised I had done a good job with my students. However, on other occasions, I felt guilty and frustrated for not knowing earlier how to identify and help, for example, students with speaking anxiety.

All the topics were fascinating, but language mindsets profoundly caught my attention. Thinking of some former students and colleagues when listening to some fixed mindsets examples was inevitable. First, I remembered some students who said phrases such as “I don’t have the ability to learn English,” as if they were incapable of changing that. They seemed hopeless, frustrated and demotivated for language learning. Unfortunately, these fixed mindset comments also came from some colleagues who believed that students’ abilities could not change.

I also realised that I am a growth mindset oriented person who loves challenges and has achieved everything due to hard work, effort and persistence. I have failed, but I have been able to improve and succeed. I recalled that some of my teachers did not believe in learners’ improvement. However, I was lucky to have a loving family who always supported me; I think they moulded my mindset. Then, I wondered: What if students whose families have fixed mindset orientations also have fixed mindset oriented teachers? They would have nobody to tell them they could improve their abilities by working hard. For this reason, I decided that I wanted to learn how to promote growth language mindsets and spread that knowledge to help other teachers change students’ incorrect beliefs, believe in themselves and work hard to achieve their goals.

When I learned how people’s perceptions of intelligence could affect their learning and, most specifically, how growth mindsets could improve learners’ motivation and achievement, I decided to investigate language mindsets for my master’s dissertation. As we only had a couple of months to conduct that research, I focused on teachers’ language mindsets. I also strengthened my own growth mindset and decided to pursue PhD studies in English Language Teaching (ELT) to continue investigating this topic. In my experience, students who seemed demotivated

and made little progress seemed to have fixed language mindsets. Therefore, I decided to determine through academic research whether this was only my perception and to know whether developing growth mindsets could impact students' motivation and learning.

1.4 Purpose of the Study

The current study is based on the assumption that beliefs, intelligence and, most specifically, mindsets—beliefs about intelligence—are dynamic and deeply influence individuals' learning. The present study attempts to find opportunities to enhance Chileans' English and diminish social-educational inequalities by applying the growth mindset theory. This investigation aims to determine whether the promotion of growth language learning mindsets may be helpful to facilitate students' growth mindsets and, in turn, increase their L2 motivation and English academic achievement. Besides, due to scarce research on mindsets in the language learning field, this research's findings intend to contribute to language mindsets literature as such investigations are scarce worldwide.

The first two research questions aim to find out whether language mindsets are related to L2 motivation and academic achievement. The third research question intends to determine whether students' and teachers' language mindsets are related. The fourth and fifth research questions address whether sessions to promote growth language mindsets can change students' language mindsets and motivation. Finally, the sixth research question examine whether English classes with a growth mindset orientation can increase students' English academic achievement.

The current study is important as it is the first language mindset investigation to answer these six questions in the Chilean context. Also, this research contributes to the broader language learning field. It is the first of its kind to test whether sessions promoting growth language mindsets could influence learners' language mindsets in the long term and L2 motivation in the

short and long term. It is also the first study to investigate whether growth mindset oriented lessons can impact English academic achievement. Finally, it offers a guideline to facilitate the development of growth language mindsets, which is also a novelty in the field.

1.5 Thesis Outline

The literature review chapter deeply recounts the language mindset research from its origins until the most up-to-date studies and its relevance for second language learning worldwide and in Chile. It starts by providing information to comprehend the theory's origins and importance for learning. Then, section 2.4 refers to investigations that have intended to change individuals' mindsets. Section 2.5 emphasises the mindset-motivation relationship and whether mindset manipulation can influence motivation. Section 2.6 concentrates on the relationship between mindsets and academic achievement and whether growth mindset interventions can impact achievement. Section 2.7 highlights the significance of mindsets in the educational context and the crucial role of teachers in developing growth mindsets. Section 2.8 describes the cultural role in mindset formation. Sections 2.8 and 2.9 point out the Chilean context, mindsets and English level. Finally, section 2.10 wraps up the main concepts earlier discussed, refers to the knowledge gaps and the research questions of this study that intend to contribute to finding possible solutions.

The methodology chapter explains the study design, participants, materials and procedures. The theoretical background for selecting these methods is based on the literature research and the research questions of this investigation. This investigation was conducted in the middle of the COVID-19 emergency. Thus, first, the methodology changes applied to suit this emergency are explained. Then, the research design chosen and a description of the participants are explained. Later, there is a description of all the materials used, such as questionnaires, diary

entry questions, online sessions on MoodleX, English lessons and English tests. Section 3.7 describes the pilot study, and section 3.8 explains the procedures conducted to answer each of the six research questions. The last section presents the research quality for the quantitative and qualitative elements.

The results chapter is organised by answering the research questions. Therefore, sections 4.2, 4.3 and 4.4 address the relationship between language mindsets and motivation, language mindsets and academic achievement, and students' and teachers' mindsets, respectively. Sections 4.5 and 4.6 show the results of the MoodleX sessions to promote growth mindsets on language mindsets and L2 motivation in the short and long term. Quantitative and qualitative results are presented. Finally, section 4.7 shows the findings of English classes with a growth mindset orientation on academic achievement.

The discussion chapter also follows the order of the research questions, and at the end, the pedagogical implications of this research are discussed. The findings of this research are discussed by comparing them with previous studies and establishing differences and similarities with former language mindset studies and mindset investigations in other areas of knowledge (due to scarce research in the language learning field). Sections 5.2, 5.3 and 5.4 discuss the findings about the relationship between students' language mindsets and L2 motivation, achievement and teachers' language mindsets. Sections 5.5 and 5.6 refer to the effectiveness of the MoodleX sessions in developing growth mindsets and increasing motivation. Section 5.7 discusses the significance of growth mindset oriented English classes on students' achievement. Finally, taking into account all the theory, results and discussion, the pedagogical implications offer a practical guideline to facilitate the development of growth language mindsets.

The conclusion chapter starts by reminding the reader of the purpose of this research and how the aims of the study have been achieved. Then, section 6.3 offers a review of the six research questions and the pedagogical implications. Section 6.4 presents the limitations of this study and section 6.5 further research recommendations considering the study's findings and limitations. Finally, section 6.6 concludes with a brief reflection on this investigation's findings and significance.

Chapter 2: Literature Review

2.1 Introduction

This chapter aims to inform about language learning mindsets and their relevance for second language learning by including cutting-edge research. It is necessary to understand the origins of the mindset theory to comprehend language learning mindsets; therefore, the first sections explain the definition and general importance of mindsets and language mindsets. Due to scarce research on language mindsets, all the sections include mindset studies in areas different from language learning. Section 2.4 explains whether mindsets can change and refers to investigations that have aimed to change the participants' mindsets. Section 2.5 highlights the relationship between mindsets and motivation and whether changes in learners' mindsets can impact motivation. Section 2.6 dedicates to studies researching the mindset and academic achievement relationship. Also, this chapter points out different studies that have investigated whether manipulating the learners' mindsets can impact their academic outcomes.

Then, section 2.7 refers to the importance of mindsets in the educational context, in which teachers play a crucial role. The importance of teachers' growth mindsets and strategies to develop growth mindsets are detailed described. Section 2.8 explains the role that culture might have in mindset formation. Sections 2.8 and 2.9 refer to the Chilean context and provide information about the Chileans' mindsets and English level. Finally, considering the main points discussed in this chapter, research gaps and possible solutions, section 2.10 concludes with the research questions of the present study.

2.2 Mindsets

2.2.1 Mindset Definition

Mindset is a concept developed by the American psychologist Carol Dweck, who has researched this topic and has contributed to the educational field for many years. The origin of mindset goes back to the lay theory of intelligence. This lay (or implicit) theory concerns the manner individuals perceive and understand intelligence (Dweck, 1996; Dweck et al., 1995; Dweck & Leggett, 1988). According to their intelligence beliefs, people can have two types of theories: entity and incremental (Dweck, 1999; Dweck et al., 1995; Dweck & Leggett, 1988). On the one hand, people who believe that intelligence is fixed hold an entity theory, whereas on the other hand, people who think that intelligence is dynamic and able to increase possess an incremental theory (Dweck, 1999; Dweck et al., 1995; Dweck & Leggett, 1988).

Later on, Dweck (2017) relates the concepts of the theories of intelligence with mindsets; as a result, she declares that there are two types of mindsets: fixed and growth. A fixed mindset maintains the belief that people's intelligence and ability are determined at birth; thus, intelligence cannot be changed, and there is a tendency to elude challenges and failure. In contrast, a growth mindset believes that abilities can be improved through practice; thus, people possess an immeasurable aptitude to reach their learning goals through perseverance and effort (Dweck, 2010, 2017).

As it is possible to see, lay theory and implicit theory of intelligence were terms generally used in the past (e.g. Dweck & Leggett, 1988), but now the term mindset is more frequently used by researchers (e.g. Dweck 2010). However, nowadays, some investigations mention all the concepts (e.g. Lou & Noels, 2020). For that reason, in this research, all these terms will be used interchangeably to refer to the different types of beliefs about intelligence.

2.2.2 Importance of Mindsets

Mindsets are beliefs about intelligence. Beliefs have the capacity to affect learning profoundly (Williams et al., 2015). Mindsets can substantially impact how individuals react to failure, success and effort. According to Dweck (1999, 2010, 2017) and Mueller and Dweck (1998), people with fixed mindsets believe they need to prove that they are intelligent without needing effort. They are afraid of making mistakes and failing because people will see they are not smart. Therefore, they tend to choose easier challenges since they prefer to thrive on things they can do well to prove that they are unique or superior (Dweck, 1999, 2010, 2017; Mueller & Dweck, 1998). In contrast, people with growth mindsets see mistakes and failure as an opportunity to improve through effort; therefore, the effort is vital to succeed and learn; for this reason, they tend to choose more difficult challenges to learn and grow (Dweck, 2017; Mueller & Dweck, 1998). In conclusion, fixed mindsets make people not fulfil their potential, and people with growth mindsets tend to succeed thanks to the effort they put into their activities (Dweck, 2017).

2.3 Language Learning Mindsets

2.3.1 Language Mindsets Definition

Individuals can have different intelligence theories for different domains (Dweck et al., 1995). People might possess different mindsets for diverse aspects of their lives because mindsets can function separately from one another (Ryan & Mercer, 2012). Lou and Noels (2017a) support this domain-specific nature of mindsets as they found that language mindset weakly correlated with a general mindset and other specific abilities. Mindsets have been extensively investigated in domains related to maths, science and sports; however, there are only a few investigations particularly associated with language learning (e.g. Lou, 2014; Lou &

Noels, 2016, 2017a, 2017b, 2019, 2020; Lou et al., 2017; Mercer & Ryan, 2010; Noels & Lou, 2015; Ryan & Mercer, 2011, 2012).

Mercer and Ryan (2010) and Ryan and Mercer (2011, 2012) have described fixed and growth language learning mindsets. Fixed language mindsets believe outstanding language learning is possible when people have a natural talent or ability that cannot be changed. Growth language mindsets think that the ability for language learning can be developed through effort, practice and hard work. Mercer and Ryan (2010) and Ryan and Mercer (2011) suggest that people might have different language learning mindsets for different language skill domains and aspects of the language; for example, a person can have a growth mindset about writing but a fixed mindset about pronunciation. Some studies support this domain-specificity of language mindsets. For instance, Khajavy et al.'s (2022) empirical study found that the L2 reading mindset was distinctive from general language mindsets.

Mercer and Ryan (2010) investigated whether university English as a Foreign Language (EFL) learners believed that foreign language learning success was achievable through hard work or established on natural ability. The results showed that most participants believed that individuals require a mixture of ability and effort to learn a language. Ryan and Mercer (2012) also researched the concept of language aptitude. In Ryan and Mercer's (2012) study, participants were asked to reflect on the role of natural talent in language learning. The results indicated that most of the learners believed in the existence of an innate ability; however, all of them expressed that natural ability is only one component to succeed in language learning (Ryan & Mercer, 2012). Both qualitative studies confirmed the existence of domain-specific mindsets and revealed that language learning mindsets are very complex. Lou and Noels (2019) refer to the complexity of language mindsets and explain that they involve different types of beliefs.

Some beliefs are related to general language intelligence, language learning aptitude, and age sensitivity. Other beliefs specifically concern different skills that have to be developed (e.g. reading, grammar, speaking).

2.3.2 Importance of Language Mindsets

Language mindsets are fundamental because they influence how individuals react to unfavourable situations (Mercer & Ryan, 2010). Learning a new language may include challenging situations in which learners might experience, for example, unsuccessful interactions with other speakers (Lou & Noels, 2017a). In psychology, Diener and Dweck (1980) investigated responses to failure situations and identified and categorised two types of responses: mastery and helpless. Mastery-oriented individuals see difficulties as opportunities to learn; in contrast, helpless responses tend to avoid challenges as they consider them uncontrollable situations (Diener & Dweck, 1980). Lou and Noels (2017a) state that mastery responses tend to keep a positive mood, while helpless responses lead to more negative emotions. They highlight that positive and negative responses can predict language learning perseverance and proficiency. Therefore, Mercer and Ryan (2010) and Noels and Lou (2015) believe that a better understanding of individuals' mindsets might be a helpful manner of promoting learners' growth.

Lou and Noels (2019, 2020) recognise that mindsets have had an enormous impact on educational practice reforms as well as in investigations related to motivation. Some studies have researched the relationship between language mindsets and motivational processes (e.g. Lou & Noels, 2016, 2017a). Dweck (2017) suggests that mindsets are essential to motivation since they can influence the manner individuals think, feel and act in different aspects of their lives. In the educational setting, learners with growth mindsets tend to be motivated to develop competence through effort (Lou & Noels, 2020). Individuals with fixed mindsets are more likely to be

motivated to corroborate their competence because they think that intelligence is immutable (Lou & Noels, 2020).

2.3.3 Language Mindset Inventory

Lou and Noels (2015) created the Language Mindsets Inventory (LMI), a questionnaire to investigate language learning mindsets and their relations with other motivational variables (cited in Noels & Lou, 2015, p. 43). The LMI was based on Dweck's (1999) research on intelligence and maths ability, and Mercer and Ryan's (2010) and Ryan and Mercer's (2012) studies of language learners' beliefs (Lou & Noels, 2017a; Noels & Lou, 2015). The LMI consists of three dimensions: General language intelligence beliefs (GLB), L2-aptitude beliefs (L2B), and age-sensitivity beliefs (ASB) (Lou & Noels, 2016, 2017a, 2019, 2020; Noels & Lou, 2015).

Lou and Noels (2020) state that fixed and growth language mindsets at least involve GLB, L2B and ASB and highlight that these three widespread subjects have produced debates in second language acquisition (SLA). For example, GLB are related to the discussions about the existence of linguistic or verbal intelligence (Lou & Noels, 2020). L2B are connected to the debate on whether the aptitude for learning a new language is fixed (genetic-based) or malleable through effort and training (Lou & Noels, 2017a, 2020). Horwitz (1988), Mercer and Ryan (2010) and Ryan and Mercer (2012) have found in their investigations that individuals have different thoughts about the importance of language aptitude in language learning. Finally, ASB are related to the critical/sensitive period hypothesis (Lou & Noels, 2017a, 2019, 2020). Some researchers strongly state that the capacity for learning a second language is flexible when people are young, decreasing as individuals become adults because of neurobiological changes (DeKeyser, 2000). On the other hand, other scientists support that biologically age cannot

restrain the capability to learn (e.g. Abello-Contesse, 2009; Marinova-Todd et al., 2000). Some investigations have found that language learners believe it is easier to learn a new language at a younger age (e.g. Horwitz, 1988). Others have detected that some learners believe that pronunciation is a skill that can only be developed at an early age (see Mercer & Ryan, 2010).

Lou and Noels (2020) confirm that they used these premises to create and validate the LMI with learners of a diversity of foreign languages and learners of English as a second language (e.g. Lou & Noels, 2016, 2017a, 2017b). They discovered that L2 learners had different grades of the entity and incremental theories in each of the propositions: GLB, L2B and ASB. Then, they shortened these beliefs to classify individuals' language mindsets into fixed and growth (Lou & Noels, 2017a). Lou and Noels (2020) state that some researchers treat mindsets as a dichotomous framework in which people have either fixed or growth mindsets. However, they argue that this dichotomy has not received much support, as other investigators state that learners can have a mixture of both mindsets. For example, Mercer and Ryan (2010) and Ryan and Mercer (2012) found out that second language learners believe that, among other factors, ability and effort play a role in language learning. Dweck (2015) revisited the growth mindset theory and declared that individuals are a mixture of both mindsets instead of possessing fixed or growth mindsets. Lou and Noels (2017a) state that language mindsets should not be treated as a particular two-faced item unless this distinction is useful according to the objectives of the investigation. Lou and Noels (2019) highlight that as mindsets can vary over time and across situations, the LMI should not be used to categorise learners' mindsets. Instead, the LMI reflects patterns of a certain group in a specific situation and point in time.

2.3.4 Decremental Mindsets

Lou et al. (2017) researched decremental beliefs, a new mindset related to the belief that intelligence can be reduced. According to Berg and Sternberg (1992), the framework that includes entity and incremental beliefs might not capture the whole essence of change beliefs. Also, Lou et al. (2017) argue that current mindset investigations involve beliefs about change which capture positive but not negative change. They argue that individuals also have reported having experienced the fear of loss, negative changes and decreased ability. Four hundred and seven university students participated in two studies demonstrating that decremental beliefs are independent of the increase of ability and maintenance of ability. Lou et al. (2017) proposed an alternative trichotomous framework of implicit theories, which includes: growth mindset, fixed mindset and decremental mindset.

2.4 Can Mindsets Change?

2.4.1 First Mindset Studies

Blackwell et al. (2007) manipulated the participants' mindsets by teaching them about brain malleability. In study 2, ninety-one seventh-grade students participated in the incremental theory intervention. Forty-three students were in the control group, while forty-eight were in the experimental one. In 4 (out of 8) lessons (equivalent to 1 hour and 40 minutes), students in the experimental condition participated in science-based readings, activities and discussions to learn about brain malleability and how the brain can be developed. The experimental group scored significantly higher than the control group in the items assessing the contents of the incremental theory intervention. The theory of intelligence was re-assessed three weeks after the last workshop session in participants in the experimental condition. A paired sample t-test demonstrated that participants in the experimental condition changed positively (4.36 pre-

intervention vs. 4.95 post-intervention, Cohen's $d = .66$, $t = 3.57$, $p < .05$), which means these participants' theory of intelligence was stronger after the intervention.

Aronson et al. (2002) designed a different experiment. They grouped the participants into malleable pen-pal condition, control pen-pal condition, and no pen-pal condition. In the two pen pal conditions, different views of intelligence were promoted. The malleable condition stimulated the incremental view of intelligence, and the control condition, the entity view. The third group did not participate in the pen pal program manipulation. The pen-pal programs consisted of three 1-hour sessions. The primary purpose was that participants could exchange letters with academically at-risk secondary students to show them it is possible to overcome difficulties and get favourable outcomes by sharing their own experiences. In Aronson et al.'s (2002) study, students in the malleable condition not only learned about brain malleability (as in Blackwell et al., 2007) but also needed to reflect on it to advise students facing academic difficulties to get good outcomes. Comparing the three intervention groups showed that the intervention benefited African American students who participated in the malleable pen-pal condition. They got the highest scores in items related to the theory of intelligence in the short- and long-term measures (taken approximately nine weeks after the intervention's end), meaning they viewed intelligence as malleable, which persisted over time.

Sriram (2014) developed an intervention to see if teaching about the growth mindset would change college students' mindsets (and effort and achievement, see sections 2.5.5 and 2.6.5, respectively). Students in the treatment group received four 15-minute sessions. They learned about brain malleability by watching fixed and growth mindsets videos, looking at famous people's quotes, and answering reflection questions. Mindsets were measured using the implicit theory of intelligence scale (based on Aronson et al., 2002; Blackwell et al., 2007).

Analysis (t-tests) of the growth mindset intervention showed that students in the treatment condition reported significantly higher mindset scores after the intervention than students in the control group, whose scores did not change significantly.

Paunesku et al. (2015) tested two mindset interventions with 1,594 high-school students in the United States of America (USA). They divided the participants into four groups: growth mindset intervention, sense of purpose intervention, both interventions together and the control group. They applied brief measures to test the effect of the interventions (at the beginning of the first session and at the end of the last one). Two items assessed the beliefs about the malleability of intelligence, the same used in previous investigations (e.g. Blackwell et al., 2007). The contents and procedures of the growth mindset intervention were based on previous research (Aronson et al., 2002; Blackwell et al., 2007; Good et al., 2003); however, the materials were adjusted to be successful in one 45-minute online session. Results (a linear regression analysis) showed that the growth mindset intervention was effective as the students showed a more malleable view of intelligence in the post-intervention measure.

Donohoe et al. (2012) examined the effect of the online Brainology program to boost growth mindsets on students' mindsets (and resilience and sense of mastery) in secondary students. They conducted a quasi-experimental study that included pre, post and follow-up assessments using a mixed methodology. Participants were 33 students between 13 and 14 years old from a Scottish secondary school; 18 were part of the intervention group and 15 of the comparison group. The comparison group continued with their standard classes. Students in the intervention group completed the four units of the Brainology program. They had to complete one unit in each session, and each of them lasted approximately 40 minutes. Also, they had to answer some questions related to the contents of the units to guarantee they were understandable

for the students. Students' mindsets were measured using Dweck's (1999) theories of intelligence scale before the study (pre), the following week after the end of the program (post), and three months later (follow-up). Results showed that the program significantly increased the intervention group's post-test scores of students' mindsets. Nonetheless, the follow-up test scores showed a decrease in students' mindsets, demonstrating that the intervention effects were not maintained. The quantitative results were supported by the analysis of the qualitative ones, which also showed that the effects of the intervention did not last long. Students in the control group did not show significant changes in their post-test scores.

2.4.2 Upgraded Mindset Studies

In their pilot study, Yeager et al. (2016) conducted a series of randomised experiments (A/B testing) to test some variations on the mindset interventions and upgrade them. They applied pre-and post-surveys that measured mindsets (fixed items) before and after the experiments. These studies involved 3,004 participants. They discovered that students who had to summarise some growth mindset related content (indirect framing) got greater mindset changes than the ones who were told that the growth mindset approach was created to help them (direct framing). They found that teaching proof about the growth mindset perspective was more effective than showing and disproving the fixed mindset view. They also found that it was better to refute fixed mindsets by comparing individual progress (within-person comparison) rather than to compare the progress of oneself with another individual (between-person comparison). They noticed that the treatments that included testimonies of famous adults who endorsed growth mindsets were more efficient than the treatment without these advocacies.

They also took account of psychological theory to re-design the interventions. They also conducted A/B testing on three theoretical elements. They found out that it was necessary to

emphasise not only “hard work” but also the use of new “strategies” to overcome difficulties aiming to discharge the worry of embarrassment when asking for help or changing the learning approach. To explain the idea that individuals can grow their intelligence, they also included more prosocial messages instead of only focusing on self-motives to get to students who might have more communal values. They also worked on improving the attitudes’ internalisation among adolescents by creating a norm to use a growth mindset and showing stories of more aged peers with growth mindsets. Finally, the revised intervention provided more opportunities for the students to write their own stories and opinions. They included quotes from admired famous people, more varied writing exercises, reduced the amount of information, showed scientific results in figures, and incorporated examples more relevant to teenagers.

This upgraded mindset intervention has been tested in some studies, obtaining favourable results in changing participants’ mindsets. For example, Yeager et al. (2016), in study 1, compared the original growth mindset intervention (Paunesku et al., 2015) and the revised version (see Yeager et al., 2016, pilot study) with a sample of 7,501 9th-grade students from 69 high schools in the United States and Canada. Students’ mindsets were assessed using three fixed items before and after the sessions. They found that the revised computer growth mindset intervention successfully modified the participants’ beliefs more than the original materials. Yeager et al. (2016), Study 2 involved 3,676 9th-grade students from ten public schools in five different states of the USA. They compared the revised growth mindset intervention (the same used in study 1) with a control group. All the participants completed pre-and post- measures of mindsets before and after the interventions. Results showed that the treatment group changed their mindset much more than the control group, and the gains obtained between the two groups were significantly different. Yeager et al. (2019) conducted the same revised online growth

mindset intervention (Yeager et al., 2016), which consisted of two 25-minute sessions on a national scale with a population-generalisable sample (N = 12,490) in the USA. This time the intervention was more favourable in inculcating the growth mindset belief regardless of student and context features.

Two of the interventions conducted by Rienzo et al. (2015) consisted of teaching about intelligence malleability. The pupil intervention involved 286 Year 5 students from 6 different schools in the UK. One hundred forty-four were assigned to the intervention group. They received a six-week course of classes with a growth mindset focus delivered by students from the University of Portsmouth who were fully trained. The mindset workshops covered growth and fixed mindsets, hard work, effort and practice and activities to show that finding proper strategies helps learn maths and English. Four more sessions delivered by external partners reinforced those concepts. The second intervention was a teacher professional development course that lasted two and half days, led by the University of Portsmouth. The course focused on approaches so that educators could develop and reinforce growth mindsets while teaching. This intervention involved 30 schools and 1,505 students. Three entity theory statements created by Dweck (1999) were used to assess students' mindsets. Students answered this questionnaire before and after the intervention to promote growth mindsets. Results showed that students in the intervention group scored higher than the ones in the control group in both interventions; however, these findings' security is low. According to the authors, a secure finding is that students whose teachers received the professional development intervention and also qualified to receive free school meals (FSM) got higher scores on the theories of intelligence measurement. A possible explanation for this result is that schools in the control and treatment groups already used aspects of the growth mindset theory.

2.4.3 Language Mindset Studies

Lou and Noels (2016) were the pioneers—and the only known intervention—in the language learning mindset intervention to change individuals' language mindsets. They created the LMI, a questionnaire to get to know people's language mindsets and examine their relationship with more motivational variables (see section 2.3.3). For the purpose of Lou and Noels' (2016) study, participants (N = 150) were assigned to two different conditions, incremental or entity and answered a series of questionnaires, including pre-and-post-LMI. In this investigation, the researchers tested whether it was possible to influence the participants' language mindsets by reading different types of articles (adapted from Hong et al., 1999). Participants in the incremental condition read an article that supported the incremental language theory. In contrast, students read an article supporting the entity language theory in the entity condition. Both articles included the three aspects of the LMI (GLB, 2LB and ASB) and a reading comprehension task (write a summary) to confirm their understanding. Manipulation effectiveness was analysed by conducting ANOVA tests. Results showed that participants in both conditions did not differ in their beliefs on the pre-test. Nonetheless, on the post-test, students in the incremental condition got lower scores in the entity beliefs and higher scores in the incremental beliefs than students in the entity condition. These results showed that the language mindset intervention successfully changed students' language learning beliefs.

2.5 Mindsets and Motivation

2.5.1 Relationship Between Mindsets and Motivation

Investigations from areas of knowledge different from language learning have found a relationship between mindsets and other motivational variables. For example, Blackwell et al. (2007), in study 1, used a motivational questionnaire that assessed 373 students in junior high

school. The five motivational variables measured were the following: theory of intelligence, goals, beliefs about effort, and attributions and strategies in response to failure. Results showed that an incremental theory of intelligence (or growth mindset) was positively associated with effort beliefs (r = .54), learning goals (r = .34), low helpless attributions (r = .44) and positive strategies (r = .45).

Jennings and Cuevas (2021) examined whether seventh students' growth mindsets could impact motivation (and achievement, see section 2.6.5) in the USA. To measure mindsets, they used Dweck Mindset Instrument (DMI) and to measure motivation and school engagement; they used the School Engagement Scale (SES). The SES evaluated three areas, behavioural, emotional, and cognitive engagement. The students participated in eight sessions to learn about the growth mindset theory. These sessions were delivered once a week and lasted 15 minutes. In the sessions, the students learned about the mindset theory and implications of having growth and fixed mindsets, brain malleability, the importance of feedback, and embracing challenges and mistakes; finally, they were given challenging tasks to use their creativity and critical thinking skills. After those sessions, the researchers found a relationship between the gains obtained in the DMI and SES. They focused on the gains of each measure after the growth mindset program. They found a relationship between the increases in mindsets and motivation. The correlations between mindsets and the three areas of the SES were statistically significant (mindsets and behavioural engagement, r = .61; mindsets and emotional engagement, r = .54; mindsets and cognitive engagement, r = .47. Again, it is possible to say that in Jennings and Cuevas' (2021) study, mindsets moderately correlated with motivation.

2.5.2 Motivation in the Language Learning Field

Motivation has probably been the most popular concept of investigation among researchers and teachers (Dörnyei & Ryan, 2015; Ushioda, 2012; Williams et al., 2015). The term motivation comes from the Latin word *movere*, which means "to move." Understanding what drives individuals to make decisions, take action, invest effort, and persist in their actions are fundamental questions at the centre of motivation research and theory (Dörnyei & Ushioda, 2011). The area of research related to acquiring a foreign language has emphasised the significance of motivation as a crucial and recurring element that impacts the success of students in terms of their language proficiency (Al-Hoorie, 2017; Lamb, 2012, 2017).

Even though researchers agree on the fact that motivation is crucial for language learning, there is no unanimous definition (Dörnyei, 2001). Different definitions of motivation have been given throughout the years. For example, Garden (1985) defined motivation as "the combination of effort plus desire to achieve the goal of learning the language plus favourable attitudes toward learning the language" (p. 10). Then, Williams and Burden (1997) described motivation as follows:

> Motivation may be construed as a state of cognitive and emotional arousal, which leads to a conscious decision to act, and which gives rise to a period of sustained intellectual and/or physical effort in order to attain a previously set goal (or goals) (p. 120).

Dörnyei and Ottó's (1998, p.64) also provided a definition of L2 motivation:

> In a general sense, motivation can be defined as the dynamically changing cumulative arousal in a person that initiates, directs, coordinates, amplifies, terminates, and evaluates the cognitive and motor processes whereby initial wishes and desires are selected, prioritised, operationalised and (successfully or unsuccessfully) acted out.

Later, Dörnyei (2005) stated that motivation is the main driving force that initiates the process of learning a second language and sustains it throughout the long-term learning process.

Most researchers in the field of motivation would only agree on one thing: motivation is related to the direction and magnitude of human behaviour (Dörnyei & Ushioda, 2011). This means that it involves: “the choice of a particular action, the persistence with it, the effort expended on it.” (Dörnyei and Ushioda, 2011, p. 4).

Although there is no agreement on a single definition, the definitions of motivation share some similarities. In summary, motivation can be understood as an internal drive or force that leads to initiating and maintaining a particular action with persistence and effort throughout the learning process to achieve a determined goal. Therefore, this is the definition of motivation adopted in this study. Also, this research recognises key findings of motivation according to the works of Dörnyei (2005, 2009b) and Dörnyei & Ushioda (2011), who have contributed to understanding this construct in places where English is a lingua franca, such as in Chile:

- Motivation has a multi-dimensional nature, including cognitive and affective aspects and how these different components of motivation interact with each other.
- Motivation is a multifaceted construct influenced by personal and contextual factors.
- Motivation is not a fixed trait but rather a dynamic process that can change over time and be influenced by various factors, such as individual differences, learning contexts, and cultural factors.

There have been different theories of motivation over the years. To start, Garden and Lambert (1972) and Garden (1985) thought that L2 learning was related to social and psychological dimensions, which separated language motivation from any other type of language knowledge. They explained two types of orientation for L2 motivation: the integrative orientation, which reflected a personal interest in the individuals and culture of the L2, and the

instrumental orientation, which reflected the specific value and advantages of L2 learning. In the early 1990s, the social-psychological dimension started to lose dominance (Dörnyei & Ryan, 2015; Uhioda, 2012). Different researchers (e.g. Dörnyei, 1994) criticised this perspective and pointed out the importance of including cognitive theories of motivation. Williams et al. (2015) highlight that the cognitive perspective is fundamental as it relates motivation to external factors and internal factors that come from within the individuals.

Later came the goal-setting theory. Goals are a significant concept within the cognitive theories of motivation. We all make efforts to achieve our goals; however, we do not put the same amount of energy into reaching all of our goals in the same manner (Williams et al., 2015). The goal-setting theory states that specificity, perceived difficulty and degree of commitment are essential elements in our goals (Locke & Latham, 1994). Learners tend to perform actions when there is a high probability of success (Williams et al., 2015).

The self-determination theory (SDT) demonstrates how individuals handle external and internal aspects. Deci and Ryan (2002) refer to this theory and explain that people continually try to control three essential psychological needs: autonomy, relatedness and competence. Human beings act in response to external stimuli, and at the same time, they make and maintain efforts more strongly when they feel competent, feel they can control their actions, and feel they are connected to other people (Williams et al., 2015). Also, SDT refers to intrinsic and extrinsic motivation. Intrinsic motivation is the one that makes people do an activity which provides them satisfaction or enjoyment, while extrinsic motivation is the one that makes people do an activity to reach another goal (Williams & Burden, 1997; Williams et al., 2015).

Currently, the leading model of language learning motivation is the L2 Motivational Self System (L2MSS) developed by Zoltán Dörnyei (see Dörnyei, 2005, 2009b). Dörnyei (2005)

believes that a foreign language is not just a means of communication that can be learned like any other academic subject. Rather, it is a fundamental part of a person's identity, involved in most mental activities and considered to be an integral part of their personal "core". Therefore, he suggests a system that specifically concentrates on elements of a person's self aligns with the holistic approach of previous theories. This system portrays individuals' motivation to learn a second language by focusing on the concept of self. Dörnyei (2009b) contends that "motivation entails the aspiration to reduce the gap between one's actual self and the expected behavioural standards of the ideal/ought selves" (p. 215). This system regards motivation as a component of self-realisation (Williams et al., 2015). Self-concept is situated at the centre of the psychology of individuals and represents what we believe about ourselves and also how we feel about the person we believe to be; therefore, it involves cognitive and affective areas (Mercer, 2008, 2011, 2012). The L2MSS is based upon the notion of possible selves (see Oyserman et al., 2006).

This model comprises three main self-guides: the ideal L2 self, which represents the individual we would like to become as long as we use the target language; the ought-to L2 self, which concerns the perceived obligations and responsibilities from other people as a language learner; and the L2 learning experience, which arises from individuals' interactions with learning situations and perceptions of previous experiences with the target language (Dörnyei, 2005; Dörnyei & Ryan, 2015; Williams et al., 2015). According to this model, self-concept is placed at the heart of learners' motivation. The rationale states that people compare their current self-concept with other ones, such as the ideal self and ought-to-be self; and after that comes the individuals' motivation to diminish the distance between the current self-concept and ideal and/or ought-to-be self (Dörnyei, 2005, 2009b; Dörnyei & Ryan, 2015; Ushioda, 2012; Williams et al., 2015).

Dörnyei (2005, 2009b) introduced the L2MSS as a comprehensive theory that can potentially encompass the broad array of psycholinguistic factors that influence motivation, previously considered separate or conceptually overlapping and confusing. For example, Csizér and Dörnyei (2005) suggested that the concept of integrativeness required a more comprehensive interpretation. Drawing on the possible selves theoretical framework by Markus and Nurius (1986) and self-discrepancy theory (Higgins, 1987), they argued that integrativeness could be understood as the ideal L2 self. Dörnyei (2005) proposed that redefining integrativeness as the ideal L2 self could assist in clarifying L2 motivation in EFL settings, regardless of exposure to L2 speakers, particularly in situations where the L2 is mainly taught as a mandatory school subject.

The L2MSS will be used in this research to examine students' L2 motivation (detailed information about the reasons for choosing this theoretical framework is in section 3.6.1.3). In general, meta-analysis studies (e.g. Al-Hoorie, 2018; Yousefi & Mahmoodi, 2022) have shown that the L2MSS has been effective in explaining learners' motivation in different parts of the world. It is also important to highlight that a meta-analysis conducted by Al-Hoorie (2018) and a study conducted in Chile (Kormos et al., 2011) have found that the ought-to L2 self does not always contribute to learners' motivation. However, given the dynamic nature of motivation and the limited investigations using the L2MSS questionnaire in South America, it would be beneficial to determine whether the ought-to L2 self contributes to the motivation of Chilean secondary students in the 21st century, especially considering that the investigation in the Chilean context questioning the impact of the ought-to L2 self on students' motivation was conducted over a decade ago.

2.5.3 Relationship between Language Mindsets and Motivation

Cacali (2019) examined Japanese university participants' (N = 128) mindset and L2 motivation, and the results showed that, in general, the two variables significantly correlated. According to Cacali (2019), mindsets were measured using adapted items from Dweck's (2006) research. L2 motivation was measured using items related to the L2MSS from the three constructs (ideal L2 self, ought-to self and L2 learning experience) and a motivational criterion based on the participants' self-reported motivation levels.

Lou and Noels (2016, 2017a) examined the relationship of language mindsets with other motivational variables with 150 and 189 university students, respectively. Lou and Noels (2016, 2017a) found that language mindsets can influence different types of motivational responses. Students with incremental beliefs reported endorsing more substantial learning goals, while students endorsing entity beliefs (and perceived themselves as possessing solid language ability) supported performance goals. Consequently, responses in failure situations were also different. Students with more incremental beliefs reported more mastery-oriented responses and stronger intentions to carry on learning a new language. In contrast, students with more entity beliefs showed more helpless-oriented responses and fear of failure. In short, both studies (Lou & Noels 2016, 2017a) argue that language mindsets can affect individuals' motivation. Also, both investigations in North America at the university level determined that LMI is a reliable instrument.

In a more detailed study, Waller and Papi (2017) examined the association between language learners' mindsets about writing and writing motivation (and written corrective feedback orientation). They created a questionnaire based on previous research (implicit theories measured general and writing intelligence beliefs considering Dweck's 1999 research). Multiple

regression analysis showed that growth mindsets about writing intelligence significantly predicted learners' writing motivation (and feedback-seeking orientation). This shows that mindsets for specific language learning domains (e.g. writing) can also be related to that particular motivation.

2.5.4 Further Research on Language Mindset and Motivation

Lou and Noels (2020) gestated the Language-Mindset Meaning System (LMMS) to show in what manners language learning mindsets help language learning motivation. They claim that language mindsets are consistently linked to motivational beliefs and self-regulatory processes such as effort beliefs, attributions, achievement goals, failure mindsets, self-regulatory tendencies, and competence-based emotional tendencies. They state that the constructs they declared to be linked with mindsets are also connected to educational achievement and language success. They suggest trying the impact of these constructs by integrating them to describe learners' motivation in a better manner. For example, Lou and Noels (2017a) created a path model called Mindset-Goal-Response Model, in which they experimented with goal orientation, self-regulatory tendency and emotional responses. They found that mindset was a predictor of effort beliefs and goal orientation, and at the same time, goal orientation indirectly predicted emotional and behavioural responses to failure. Lou and Noels (2020) encourage other investigators to connect other components of the LMMS and to experiment with other longitudinal methods to test the dynamic of LMMS. They also suggest investigating the three aspects of language mindsets they proposed (GLB, L2B, and ASB), decremental mindsets and the domain-specificity of language learning.

Lou and Noels (2020) also stress the importance of more studies on other motivational constructs. They argue that the L2MSS and the SDT are frameworks that foster growth

orientations; therefore, figuring out their links with language mindsets might facilitate the integration of various perspectives in language development. The L2MSS state that individuals can develop motivation by thinking of the person they would like to be (the ideal L2 self) (see Dörnyei, 2009b; Ushioda, 2012). Lou and Noels (2020) claim that individuals with fixed language mindsets might not project themselves as becoming competent in a new language. Also, they explain that growth mindsets attempt to enhance their target language ability. Therefore, they tend to do activities that might help them to become who they aspire to be, which also, at the same time, might help them keep their motivation in the target language development. They also state that SDT (see Deci & Ryan, 2002) is another construct that could be connected to the LMMS. Deci and Ryan (2002) state that fixed mindsets and performance goals interfere with the internalisation processes as they provoke pressure and performance anxiety. Lou and Noels (2020) suggest that having growth mindsets and mastery goals can contribute to the internalisation of regulation into the self. They explain that this can be done by encouraging positive feelings about demanding learning tasks and reducing anxiety.

2.5.5 Growth Mindset Studies and Changes in Motivation

Studies in the language learning field have not specifically investigated whether classes or programs to promote growth language mindsets can impact L2 motivation. However, investigations on other subjects have examined the influence of the growth mindset theory on motivation and other psychological constructs. For example, Blackwell et al. (2007), in their second study, performed an intervention to change students' theory of intelligence in half of the students (43 in the control group and 48 in the experimental condition) to assess whether students' motivation (and maths achievement) changed after the manipulation. As explained earlier in section 2.4.1, students participated in a workshop for eight weeks, in which they

received a 25-minute lesson once a week. In 4 of these lessons, students in the experimental condition reflected on the malleability of the brain and what to do to grow their intelligence. Students' motivation was assessed qualitatively by asking the maths teacher to write down changes in students' motivational behaviour after the workshop. Later, teachers' comments were coded to know which students were reported to have changed and whether this change was positive or negative. Results showed that only two students were cited as showing negative behaviour after the workshop; then, this information was not analysed. Seventeen participants were identified as showing a positive change in motivation, and thirteen of these students had taken part in the experimental condition. This means that teachers perceived an improvement in students' motivation in 27% of the students in the experimental condition and 9% of the students in the control group. The difference between the two groups was significant (see Blackwell et al., 2007, page 256).

Sriram (2014) conducted a study to evaluate whether teaching about the growth mindset would modify college students' academic effort (and mindsets and achievement; see sections 2.4.1 and 2.6.5, respectively). Participants in the intervention group received four sessions to promote growth mindsets (15 minutes each). In the sessions, students learned about the brain's malleability, watched a video about fixed and growth mindsets, reviewed famous people's quotes, and responded to reflection questions (similar to Aronson et al., 2002; Blackwell et al., 2007). Mindsets were measured using the implicit theory of intelligence scale. Results showed that students in the incremental condition got significantly greater levels of academic effort than students in the control intervention.

Later, Yeager et al. (2016), using the revised growth mindset intervention, also assessed if the students improved other psychological measures: challenge-seeking behaviour, attributions

and goals. In study 1, Yeager et al. (2016) compared two different growth mindset interventions: the original (Paunesku et al., 2015) and the revised version (see Yeager et al., 2016, pilot study) with a sample of 7,501 9th-grade students from 69 high schools in the United States and Canada. The growth mindset interventions consisted of two sessions delivered between 1 and 4 weeks apart. Students answered pre- and post-questionnaires to test the efficacy of the interventions right before and after the sessions. They found out that the revised growth mindset intervention successfully modified the participants' challenge-seeking behaviour, attributions and goals (as well as beliefs) better than the original materials. Later Yeager et al. (2016), in study 2, involved 3,676 9th-grade students from ten public schools in five different states of the USA. They tested the same variables in study 1: mindset, attributions, performance goals and challenge seeking (only one task, "make a worksheet", was not included in study 2). Results showed that the revised mindset treatment successfully changed the students' challenge seeking behaviour (especially for high-achieving students), attributions and goals.

2.6 Mindsets and Academic Achievement

2.6.1 Areas of Knowledge and Age Group

Investigations that have intended to find a relationship between mindset and academic achievement have researched maths (e.g. Blackwell et al., 2007; Dweck, 2017; Romero et al., 2014), science (Chen & Pajares, 2010), maths and reading (Good et al., 2003); maths and language (Claro et al., 2016; Gonida et al., 2006), intelligence quotient (IQ) (Cury et al., 2008). However, there is only one investigation concerning language learning mindsets and achievement (Lou et al., 2021).

The relationship between mindsets and academic achievement has been investigated with participants of different ages. In some investigations, researchers have included primary school

students (e.g. Chen & Pajares, 2010, Gonida et al., 2006; Mueller & Dweck, 1998) and undergraduate university students (e.g. Aronson et al., 2002; Robins & Pals, 2002; Hong et al., 1999). Nonetheless, most studies have been carried out with adolescents (e.g. Blackwell et al., 2007; Claro et al., 2016, 2021; Cury et al., 2008; Donohoe et al., 2021; Good et al., 2003; Leondari & Gialamas, 2002; Medina-Garrido & León, 2017; Mouratidis et al., 2017; Paunesku et al., 2015; Romero et al., 2014, Yeager et al., 2014, 2016, 2019).

According to some researchers (e.g. Blackwell et al., 2007; Dweck, 2017), this age group has been chosen to try out mindset interventions because students pass through a challenging transition at the beginning of adolescence. They start to misbehave, their self-esteem decreases, they have to face bigger challenges, they are constantly evaluating themselves, and sometimes they are not worried about learning. Moreover, students with fixed mindsets usually drop their motivation and grades. Also, it is believed that children before the age of 11 or 12 are likely to possess an incremental view of ability as they tend to think that trying hard makes people smart (Dweck, 1999). Even though all life transitions affect people, the change to high school is notably harder; therefore, it is the most appropriate to test the effects of growth and fixed mindsets (Yeager et al., 2014).

The next paragraphs will summarise investigations that have studied the relationship between mindset and academic achievement. Only studies that have searched and reported this relationship before performing a manipulation or without performing one will be included. Information about the context of the study (e.g. number and age of participants, country of the study) and detailed information about the items and measures used to assess participants' mindset and achievement will be provided. Finally, the results of this relationship will be explained. Some of these studies have used other variables (e.g. motivation, perceived performance), which will be mentioned, but their analysis will not be explained extensively to

narrow the findings to the mindsets and achievement relationship. First, investigations that have found a positive relationship will be presented and later, the studies that have not found a significant relationship.

2.6.2 Positive Relationship Between Growth Mindsets and Academic Achievement

Some of these investigations have found a positive relationship between mindsets and academic achievement. One of the first and most emblematic research about mindset and academic attainment was carried out by Blackwell et al. (2007). Study 1 found a relationship between mindsets and maths achievement in a public secondary school in New York. The participants were 377 junior high school students who entered seventh grade in four consecutive years (between 67 and 114 every year). The theory of intelligence was assessed using six items from Dweck's research (1999) and used different measures for maths achievement. The first maths achievement scores were collected from the previous spring year when participants were in sixth grade (Citywide Achievement Test, a standardised maths test). The next scores were during years seven and eight at the end of fall and spring terms (students' grades included tests, a project, class participation and homework). In Blackwell et al.'s (2007) study, participants with a growth mindset orientation (assessed at the beginning of seventh grade) predicted ascending grades over seventh and eighth years; in contrast, students with a fixed-mindset orientation predicted an even trajectory. Also, Blackwell et al. (2007) highlight that motivational patterns mediated the relationship between mindsets and academic achievement. Growth mindset oriented students had more positive motivational beliefs, which consequently were related to better grades.

Romero et al. (2014) examined how intelligence theories affected academic and emotional outcomes with 115 middle-school students at a suburban public school using a similar

methodology to Blackwell et al. (2007). Students' mindsets were evaluated using three statements from Dweck's intelligence theory scale. Academic outcomes included GPA of core subjects (social studies, science, English and maths) from 6th to 8th grades and maths courses chosen by students (rated from 1 to 4, according to difficulty). A mixed-effect model, which included as fixed predictors, intelligence theories, time, and their interactions, showed a simple effect of intelligence theories on students' grades. Growth-mindset students (assessed in 6th grade) earned higher grades in all measures.

Mouratidis et al. (2017) conducted a longitudinal study for five months with 179 high school students in Greece to investigate the dynamics of students' motivation. Participants' mindsets and academic achievement were considered, among other variables (e.g. perceived competence and study effort). Implicit theories of intelligence were measured by adjusting three items used by Dweck et al. (1995). Academic achievement was obtained by the final students' GPA, which considered all taught lessons. This research found that participants with fixed mindsets (assessed at the mid-school year) predicted students' lower grades at the end of the academic year through regression analysis. This negative association between fixed mindsets and academic performance is consistent with previous reports (Blackwell et al., 2007; Romero et al., 2015).

Claro et al. (2016) explored the relationships between mindset, academic achievement, and family income in Chile using a data set of more than 168,000 students who took the nationwide 2012 SIMCE test (SIMCE is a Spanish acronym for System for Measuring the Quality of Education). Two items measured students' mindsets (the analysis included students who answered at least one mindset item), and academic achievement involved the scores of language (n = 168,203) and maths (n = 168,553) tests. They found that growth mindsets predicted academic achievement by using simple correlations and hierarchical models. The

correlation between mindsets and achievement was statistically significant (mindsets and language $r = .33$; mindsets and maths $r = .29$; mindsets and average language and maths $r = .34$). Hierarchical linear regression models showed that mindsets persisted as the strongest predictor of language and maths academic achievement controlling all the available recognised predictors of achievement in the dataset (e.g. family income, parents' education). One of the significances of this large-scale study was to prove the relationship between mindsets and academic achievement with an enormous number of participants. The relationship was strong across all secondary students in Chile; participants with growth mindsets got higher test scores than fixed-mindset students. This result is supported by Gouëdard's (2021a. 2021b) studies, as PISA 2018 results showed that Chile is one the top countries in which growth mindsets were associated with higher gains in academic achievement (8/76).

King and Trinidad (2021) also examined the efficacy of growth mindsets in predicting academic achievement (and motivation and engagement). They also focused on how this relationship interacts with SES. They used a nationally representative Educational Study dataset, including 15,362 tenth-grade students from public and private schools in the USA. They measured mindsets in terms of maths and used one single item. This item has been used in previous studies, "e.g. Ng, Reyes, and Eccles, 2016; Perez-Felkner, Nix, and Thomas, 2018" (as cited in King & Trinidad, 2021, page 10). Maths achievement was assessed using students' standardised test scores in tenth grade conducted by the Item Response Theory. Results showed that growth mindsets had a slightly negative association with maths test scores. This association was statistically significant ($r = -.04$, $p < .001$). Among other variables (e.g. maths self-efficacy, engagement), socioeconomic status was the most strongly and positively related to maths achievement ($r = .42$, $p < .001$). Also, they found that growth mindsets were associated positively with academic achievement only with students from high SES families. This

investigation's results differ from those obtained by Claro et al. (2016) in Chile, as growth mindsets predicted academic achievement across all SES.

Claro and Loeb (2019) conducted a longitudinal study with 221,840 students from fourth to seventh grade in California to examine the relationship between students' growth mindset and academic achievement. They found that a growth mindset (in comparison with a fixed mindset) predicted gains in English and maths achievement for students with diverse characteristics (e.g. different race, ethnicity, gender, socioeconomic levels, previous academic achievement and grade level).

Gouëdard (2021a, 2021b) analysed the relationship between mindsets and achievement using the results of the Programme for International Student Assessment (PISA) 2018. PISA is a large-scale test that assesses the performance in maths, reading, and science of 15-year-old students in different countries. Apart from the academic test, it contains a questionnaire to evaluate participants' attitudinal and socio-emotional constructs. PISA 2018 surveyed about 600,000 15- year old students from 78 nations and economies (Gouëdard, 2021b). PISA 2018 assessed economies' growth mindsets for the first time (Gouëdard, 2021a). One mindset item assessed the students' mindsets: "Your intelligence is something about you that you can't change very much" (Gouëdard, 2021b, p.15). Individuals disagreeing with this statement were considered growth mindset prosecutors and as having a stronger growth mindset than the students who agreed with the statement (Gouëdard, 2021b).

The analysis generally revealed a positive association between mindsets and academic performance (Gouëdard, 2021a, 2021b). Notably, these studies also confirm that vulnerable people, who have higher risks of poor performance, benefit the most from having a growth mindset (as in Burnette et al., 2013; Dweck & Yeager, 2019; Yeager & Dweck, 2020). Therefore, the mindset-achievement relationship was not constant and varied as sub-groups

obtained different performance gains. They found that, on average, students with a growth mindset obtained higher scores (+31 in reading, +27 for science and +23 for maths) than students with a fixed mindset after considering students' and schools' socio-economic profiles (Gouëdard, 2021a, 2021b). Growth mindsets were connected with a higher score for disadvantaged, immigrant, and girls students (+12, +9, +3, respectively) in comparison to advantaged, non-immigrants, and boys participants (Gouëdard, 2021a). Results suggest that a growth mindset could help to improve academic performance equity (Gouëdard, 2021a, 2021b).

2.6.3 No Relationship Between Growth Mindsets and Academic Achievement

Some studies that have tested the association between mindset and educational attainment have not found an association. In fact, Blackwell et al. (2007) reported a significant association between mindsets and achievement once students progressed across the transition between 7th and 8th grades (see section 2.6.2). This association was not evident at the beginning of the study (considering students' 6th-year maths tests and mindsets at the beginning of 7th grade). Blackwell et al. (2007) reported that the relationship between mindsets and achievement (from the previous year) was not significantly correlated.

Leondari and Gialamas (2002) examined the relationships among implicit theories of intelligence, perceived competence, goal orientations and achievement with 451 elementary and junior high school students in Greece. Theories of intelligence were measured using four incremental statements items, which assessed effort beliefs related to academic performance and intelligence (taken from Stipek & Gralinski, 1996). Academic performance was measured by averaging students' maths and language grades from the official school records. Leondari and Gialamas' (2002) study found that incremental beliefs were not related to achievement; instead, they were related to students' achievement goals.

Robins and Pals (2002) conducted research using a dataset from the Longitudinal Study of Self and Personality Development in the United States. They analysed SAT scores and GPAs of 508 university undergraduate students. Implicit theories were measured using "a five-item scale adapted from Erdley and Dweck (1993)" (as cited in Robins & Pals, 2002, p. 10). The achievement was measured through academic ability and actual performance. Academic ability included high school GPA and standardised test scores (verbal and maths SAT scores). GPA assessed the actual performance collected from university records. They found that fixed mindset students obtained better SAT scores ($r = .20$, $p < .05$), but they did not get higher grades in high school and college GPAs (both GPAs, $r = .03$). Therefore, they found a positive association between fixed mindsets and academic ability.

Dupeyrat and Mariné (2005) conducted a study with 76 French adult students who returned to school to get a high school diploma, which is considered a challenging experience. They used path analyses to investigate the relationships among beliefs on the nature of intelligence, goal orientation, cognitive engagement in learning, and achievement. To measure the participants' mindsets, they used nine items. They took five items from Hong et al. (1995), which measures only the entity theory of intelligence, and added four more items to measure the incremental theory of intelligence. Academic achievement was obtained from students' global final examination grades, including the sum of their four exam grades. Correlation analysis showed that the incremental theory of intelligence was not related to achievement. Then, they conducted regression analysis with achievement as the dependent variable. Then, in the regression equation, implicit theories of intelligence were entered first, followed by goal orientations and cognitive engagement measures. The results showed that only mastery goals and effort predicted achievement significantly. Therefore, Dupeyrat and Mariné's (2005) study did not find a relationship between mindsets and academic achievement.

Gonida et al. (2006) conducted a longitudinal study in Greece with 187 6th and 7th graders (late elementary and early high school years). They conducted a cross-lagged regression analysis to investigate mindsets, achievement and perceived academic competence. To assess implicit theories of intelligence, they used three items, which measured intelligence as a fixed entity. Academic achievement included a mean of students' math and language grades from official school files. These variables (and perceived competence) were tested when students were in sixth grade and retested a year later, in seventh grade. This investigation found a relationship between mindsets and achievement. Contrary to Dweck and her colleagues' previous findings (e.g. Dweck & Leggett, 1988; Dweck et al., 1995; Hong et al., 1999), participants' mindsets depended on academic achievement. Language and math achievement predicted the students' mindsets which occurred with the mediation of perceived competence.

Bazelais et al. (2018) examined the relationship between grit, mindset, and academic achievement among 309 college students in Canada. Mindsets were assessed by using 16 items from a mindset survey. There is not enough information about this survey, as the researchers explained they retrieved it from a no longer available website (14-10-2021). However, they provide some example items, for example, "You have a certain amount of intelligence, and you can't really do much to change it" (as cited in Bazelais et al., 2018, p. 5), suggesting they might be similar to Dweck's theory of intelligence scale. Academic performance was measured using students' high school and college GPAs. They tested the between-subjects effect and found no significant impact for mindsets on college GPA after controlling the following variables: age, gender, and high-school GPA.

Li and Bates (2019), in study 4, analysed the links between mindsets and academic attainment with 433 primary students in China who were between 10 and 12 years old approximately. Children's mindsets were evaluated using eight items of the Theory of

Intelligence scale (Dweck, 1999). Academic achievement was obtained through students' GPAs in core classes, English, Chinese and maths. They were obtained before the mindsets' measure to test the initial association and after the mindsets' measure to assess development in performance across time using regression. Results showed that mindsets were unrelated to initial grades and later grades in the second semester. They also analysed whether mindsets were related to maths (as in Blackwell et al., 2007), English and Chinese grades separately, but they found no association. Then, they tested the association of growth mindsets with grade improvements; however, they found no significant effect on GPA gains (compared with initial GPA). Therefore, growth mindsets did not improve learning over time. They also analysed whether the lowest-performing students (who might face bigger challenges) would get higher grades by endorsing a growth mindset. Results showed that they did not improve their grades in any subject at the end of semester 1. Reviewers suggested that they might not have found an association because of the participants' ethnicity and because Chinese subjects might have growth oriented mindsets due to living in a collectivist culture. They disagreed with these comments, arguing that ethnic differences were not related to mindset effects in other studies. Also, they found different mindset orientations in their sample (see discussion in Li & Bates, 2019).

Li and Bates (2020) conducted two near-replication studies of Blackwell et al. (2007). The investigations had a more significant number of participants (n = 832) to know whether mindsets were related to educational attainment. Study 1 tested the association of mindsets and achievement with 246 undergraduates from one UK university. Mindsets were assessed by using eight items of the theory of intelligence from Dweck's (1999) investigation, and academic achievement was tested through students' self-reported grades. They found out that the variables were not associated. Study 2 implemented a longitudinal design with 584 students across different challenging transitions (from high school to university and across the university). In

study 2, they used the same instrument used in study 1 to measure mindsets. They used high school exit qualifications (grades from national tests). Each year, university letter grades (from course records) were transformed into numerical scores for every student.

Li and Bates (2020) analysed students' mindset scores, students' entry grades and average grades in each of the four years of university. The mindsets of these students were not related at the beginning of the study with entry grades. Likewise, mindsets were not associated later with academic disadvantage across the transition. Also, they found no association between mindsets and grade improvement in the 2-year study. Mindsets did not predict students' achievement of the ones with the lowest marks at the university entrance (the ones who faced the biggest challenge). Both studies found that growth mindsets were unrelated to academic achievement or had a feeble negative influence on educational attainment in undergraduate students through challenging transitions. Li and Bates (2020) found a slight negative non-significant association in study 1 and study 2 for entry grades, years 1, 3 and 4. For year 2, the relationship was slightly positive and non-significant.

Donohoe et al. (2021) conducted a quantitative study to analyse whether there were differences between students' ability level (year group and gender) and students' mindsets (and in the social value of effort and contingencies of self-worth). One hundred and seventy-four aged 13-18 students in a secondary school in Scotland participated in this research. Mindsets were measured using Dweck's (1999) Theories of Intelligence Scale, and academic ability was obtained by using students' English (as a first language) levels: top, middle and lower. Results showed no significant differences between ability levels and mindsets. Therefore, mindsets did not vary concerning students' academic ability (and did not vary in terms of age or gender either).

Lou et al. (2021) also analysed and reflected on the mindset-achievement relationship. Participants were 234 first-year students from a Canadian university who were all enrolled in a language course. It is essential to highlight that in this study, Lou et al. (2021) classified students into three different profiles: growth, mixed and fixed mindsets. This categorisation considers students' language mindsets and achievement goals, language-use anxiety, reappraisals of challenges, and persistence. Most participants (57.7%) were in the growth mindset profile, 21.8% in the fixed and 20.5% in the growth profile. Language Mindsets were assessed by the subscale of mindsets about L2B from the LMI. Academic achievement included the final grades of the target language course from the university. This research found that mindsets alone did not predict grades. However, they discovered that students in the growth profile were constantly more engaged and obtained the best grades. While students in the mixed profile were more engaged than learners in the fixed profile, their grades were not significantly different.

PISA 2018 results showed that, in East Asian countries, the relationship between growth mindsets and academic performance was not as highly associated as in most OECD nations (Gouëdard, 2021a, 2021b). Some investigations in Hong Kong, China (whose results could predict other Asian countries with the same Confucian heritage) showed that a growth mindset could be incorporated into the predominant working hard philosophy (Gouëdard, 2021b). According to the OECD -Yidan Prize Foundation (2020, as cited in Gouëdard, 2021b, p. 19), this might conduce to develop a "false growth mindset" and infer that in those environments, fixed mindset individuals might have incorporated the "working hard" significance, which can weaken the fixed mindset consequences.

Sisk et al. (2018) conducted two meta-analyses to investigate the relationship between mindsets and achievement. Study 1 examined the magnitude of the mindset and academic achievement relationship by analysing 273 effect sizes involving 356,915 participants. Study 2

analysed the effects of mindset interventions (later discussed in section 2.6.4.2). In study 1, first, they investigated the strength of the relationship between mindsets and achievement and then the potential moderators. Results showed that the growth mindset and academic achievement meta-analytic average correlation was weak (r = .10). Then, they investigated the potential moderators and found they were limited for this variance (e.g. the academic risk and socio-economic status did not affect the relationship. Developmental stages moderated the relationship weakly for all groups, while it was not significant for adults). This meta-analysis shows great heterogeneity in the effect sizes, and the average relation is weak.

2.6.4 Successful Growth Mindset Studies in Academic Achievement

2.6.4.1 Small-Scale Studies.

Different studies have conducted interventions to change students' mindsets and see if they influence their academic achievement. Good et al. (2003) carried out an experiment in which they discovered that female, minorities and low-income adolescents, who received training for seeing intelligence as malleable, scored considerably better on standardised maths and reading tests than students who did not receive the training. Aronson et al. (2002) discovered that only three sessions about the malleability of intelligence could help African American undergraduate students develop a growth mindset and improve academically (see more information about the intervention in section 2.4.1). After conducting a longitudinal field study, Blackwell et al. (2007) concluded that the theory of intelligence is a significant predictor of maths achievement (see more information about the intervention in section 2.4.1). Romero et al. (2014) demonstrated that growth mindsets have a fundamental positive role in enhancing maths course grades (see more information about the intervention in section 2.6.2). Chen and Pajares

(2010) found that epistemological beliefs mediated the influence of implicit theories of ability on science achievement (and goal orientations and self-efficacy).

2.6.4.2 Large-Scale Studies.

Previous mindsets interventions demonstrated efficacy in small-scale interventions (e.g. Aronson et al., 2002; Blackwell et al., 2007; Dweck, 2017; Good et al., 2003). Recent investigations have tried to enhance the previous mindset interventions by experimenting with larger samples and also by including different methodologies, which have found positive results.

Paunesku et al. (2015) developed a mindset intervention on a large scale with 1,594 high-school students. They divided the participants into three groups: growth mindset intervention, sense of purpose intervention and both interventions combined. In the growth mindset intervention, students learned about the malleability of the brain, and in the sense of purpose intervention, students articulated how the hard work at school could help them fulfil their goals in life. All the interventions were effective in helping poor-performing students to improve their academic difficulties in core academic courses.

Yeager et al. (2016) pursued improving growth mindset interventions by using a design-thinking methodology. As explained in section 2.4.2, 3,004 participants participated in this study. After conducting a series of studies, the new mindset program was shorter (i.e. two sessions), included less information and incorporated visual input of scientific results (i.e. figures), different writing tasks (e.g. writing their opinions and stories), famous people's quotes and testimonies, examples more significant for adolescents (stories of a bit older peers with growth-mindsets), and emphasised the use of learning strategies (apart from effort). In study 1 (n = 7,501), Yeager et al. (2016) compared the past mindset interventions (e.g. Paunesku et al., 2015) and the revised intervention designed in their pilot study and the results showed that the last one

raised the grades of the lowest-performing students. Study 2 (n = 3,676) compared the revised intervention with a control group. The results showed that the revised version also raised core course grades for low-achieving participants; however, the effect sizes were not superior to those achieved in similar past studies (e.g. Paunesku et al., 2015).

Yeager et al. (2019) used the same online growth mindset intervention revised, piloted and tested in the study conducted by Yeager et al. (2016). Participants were 12,490 9th-grade students, and the research was conducted in the USA. The intervention conducted by Yeager et al. (2019) increased the final 9th-grade GPA in core ninth-grade subjects (maths, science, English or language arts, and social studies) of lower-achieving students (N = 6,320) compared to the control group. The study also identified that the intervention produced higher GPAs in lower-achieving students in the treatment group that attended schools where the peer norms were aligned with the growth mindset messages than students in the control group. Participants' GPAs were also greater in low- and medium-achieving schools that promoted growth mindset ideas. While high-achieving schools whose norms supported challenge seeking, demonstrated significant effects on lower-achieving students' maths and science GPAs. Also, the intervention raised the number of students who registered in advanced maths courses in high-achieving schools.

In their second meta-analysis, Sisk et al. (2018) investigated the mindset interventions' effectiveness and their potential moderators. They examined 43 studies with a total of 57,155 participants. The criteria for selecting the studies for the meta-analysis included: a) a mindset intervention for students, b) a measure of academic achievement (GPA, course exam score, course grade or standardised test score), c) a comparable control group, d) effect size report (or the information to calculate it) to see the difference between treatment and control groups, e)

include methodology and results in English. The potential moderators tested were developmental stage, academic risk status, SES, and methodological factors related to control and intervention groups. In general, they found that the effects were weak. The analysis result showed that mindset interventions were nonsignificant for adolescents, typical students and individuals facing challenging transitions, such as moving to a new school or encountering stereotype threats. Some of the results sustained particular presumptions of the growth mindset theory as the interventions might be more helpful for academically at-risk students and students with low SES. Nonetheless, the researchers highlight that these results should be carefully considered because only a few effect sizes supported these results, high-risk and non-high-risk students did not differ significantly, and somewhat small sample sizes supported the group of low SES.

To see which intervention modalities were more efficient, Sisk et al. (2018) analysed many aspects (e.g. type, length, mode, context) and found confounding results as significant effects were rarely encountered. They did not find a significant difference in interventions in which the control group was passive. They only found a significant effect when the control group was active. They did not find significant effectiveness in passive interventions (e.g. reading a passage about growth mindset without reflection). Still, they found effectiveness in interventions that involved interaction (e.g. reading about the growth mindset and writing a reflection). The length of the interventions did not show to be a significant moderator. They did find differences in the intervention modes. Interventions involving reading materials caused a more substantial effect than those delivered via computer programs. Interventions administered by different individuals, such as researchers, teachers, or both, were ineffective. Interventions that were integrated into classroom activities were not significant. The effect was significant when the interventions were conducted outside classroom activities. Interventions that did not present pre-

and post-intervention data (to test whether the interventions were effective in developing a growth mindset) resulted in being effective. However, only 46% of the interventions that presented both measures did not significantly differ between pre-and post-intervention tests.

2.6.5 Unsuccessful Growth Mindset Studies in Academic Achievement

Jennings and Cuevas (2021) investigated whether growth mindsets could influence achievement (and motivation, see section 2.5.1). The study was conducted in the USA with 95 seventh-grade students participating in 8 sessions to promote growth mindsets (15 minutes each). As previously mentioned, Jennings and Cuevas' (2021) study did not compare pre- and post-tests but focused on the gains' relationship. They did not find an association between mindsets' gains and social studies test' gains. A Pearson correlation revealed that the result of this relationship was not statistically significant, $p = .674$. Even though pre- and post-tests are not reported, it can be inferred that the intervention did not provoke the same effects on mindsets and achievement.

Sriram (2014) conducted an experimental study to examine whether a growth mindset intervention to change high-risk college students' beliefs about intelligence could improve the students' academic achievement (and mindsets and effort; see sections 2.4.1 and 2.5.5, respectively) compared to the control group. A total of 105 university students participated in this investigation in the USA. Students completed pre-and-post tests before and after participating in some sessions. Forty-five students were part of the control group and received online sessions about study skills. Sixty students in the treatment group participated in four online sessions of 15 minutes, which helped students view intelligence as malleable. The session topics were based on previous investigations (e.g. Aronson et al., 2002; Blackwell et al., 2007). They involved quotes from famous people, questions to engage in a movie clip related to fixed and growth mindsets, questions to reflect on the movie clip, videos about intelligence, the brain

and its malleability, and research about mindsets. Mindsets were measured using the implicit theory of intelligence scale. Academic achievement was measured using an academic index, which was a score derived by conversing high school class ranks and SAT scores into a 100-point scale and summing them for each participant and students' first semester GPA from university records. Results showed that there was no statistically significant difference between students' GPAs from both groups.

Donohoe et al. (2012) found out that four sessions of the Brainology program did not impact the students' academic outcomes. The study took place in Scotland with 33 secondary students (see more information about this study in section 2.4.1). One year later, there were no significant differences in academic achievement between the control and intervention groups, which means it might not be possible to generate an extensive change with short interventions. In the discussion, the authors argue that further investigations might be needed to investigate how to sustain the effects of the growth mindset sessions in the long term.

Rienzo et al. (2015) conducted one intervention for students and one for teachers in the UK (see detailed information about this study in section 2.4.2). Measures were collected before, four months after the intervention and ten months after the intervention. The results of Rienzo et al.'s (2015) study focused on the last measures. Results showed that students who participated in the workshops to develop growth mindsets made more progress in English and maths than students in the control group; however, these findings were not significant. It is important to highlight that the results for English were almost significant. Students whose teachers participated in the professional development intervention did not make better maths or English progress than those in the control group.

Foliano et al. (2019) conducted another study to improve the outcomes of Year 6 students. This was a great scale intervention, which included 5,018 students from 101 schools. This was a randomised controlled trial, and students in the intervention group were taught about brain malleability and how the brain can change and grow through effort. This programme was delivered by teachers from Portsmouth University who participated in courses on approaches to fostering growth mindsets. After this, teachers delivered eight sessions (one per week) about the mindset theory to change the students' beliefs about intelligence and build high expectations and resilience. The topics covered were in relation to "the meaning of intelligence, dealing with mistakes and emotions, understanding the brain and encouraging challenge, effort and persistence, stereotypes, and inspirational people" (Foliano et al., 2019, p. 7). In addition to the workshop, also, this time, teachers were encouraged to deliver growth mindset messages at all times, even outside the sessions and also had access to digital classroom resources so they could explain some growth mindset concepts more clearly. The evaluation of Foliano et al.'s (2019) study involved more qualitative data, such as interviews with teachers, focus groups with students, class observations and surveys. Psychologists from the University of Portsmouth prepared teachers to deliver the eight lessons and promote growth mindsets beyond the time spent during the workshop. They received one-day training, lesson plans and materials to carry out the activities properly. Results showed that students who received the intervention did not get better academic achievement in literacy and numeracy (assessed by the national Key Stage 2 tests) than students in the control group. Students who were eligible for FSM and who participated in the intervention neither made more academic progress in literacy and numeracy compared to those in the control group who were eligible for FSM.

2.6.6 Limitations of Growth Mindset Investigations

2.6.6.1 Possible Methodological Limitations.

Most mindset studies, particularly large-scale investigations, have primarily relied on quantitative data collection methods, utilising limited items to categorise/assess the participants' mindsets. For example, some successful large sample investigations have included one item (Gouëdard, 2021b; King & Trinidad, 2021), two items (e.g. Claro et al., 206) and three items (Yeager et al., 2016; 2019) to assess participants' mindsets, which may lead to inaccurate or incomplete assessments of individuals' beliefs about their intelligence and abilities.

Questionnaires offer numerous benefits, such as collecting a massive amount of information quickly and their versatility to be used with various people, situations and topics (Dörnyei, 2003). However, it is equally important to acknowledge the potential questionnaire limitations, including respondent literacy problems, social desirability bias (a tendency for individuals to respond in a way they believe is socially acceptable or desirable rather than providing honest or accurate answers) and halo effect (cognitive bias where a person's overall impression of someone or something influences their perception of specific traits or characteristics) (Dörnyei, 2003). As a result, these findings should be interpreted with caution and careful consideration.

Moreover, relying solely on quantitative measures may not fully capture the richness and depth of individuals' mindset orientations, potentially leading to an incomplete understanding of their underlying beliefs. In-depth qualitative research, as highlighted by Ryan and Mercer (2012), can yield valuable and nuanced insights. Therefore, integrating qualitative components into mindset research could provide a deeper understanding of the reasons, experiences, and narratives that shape individuals' mindset orientations.

Overall, Carol Dweck's mindset theory has made a substantial contribution to our understanding of mindsets and their associations with other variables, such as motivation and achievement. However, it is important to recognise the limitations of relying solely on quantitative components and a limited number of statements when describing participants' mindsets. A more nuanced and comprehensive approach may be necessary to fully capture the complexity and richness of individuals' mindset orientations.

2.6.6.2 Not All Mindset Studies Have Yielded Positive Results.

As discussed previously, some studies (e.g. Li & Bates, 2019; 2020) have failed to replicate the findings of Dweck's original research. These replication failures raise questions about the consistency and reliability of the initial results, prompting further investigation and examination of the underlying factors that may contribute to the variability in outcomes. According to Chivers (2017), Carol Dweck acknowledged these controversial findings and suggested that replications of her investigations could fail if not conducted under proper conditions: "Replication is very important, but they have to be genuine replications and thoughtful replications done by skilled people. Very few studies will replicate done by an amateur in a willy-nilly way." Therefore, it is essential to carefully examine the conditions and factors involved in future replications, ensuring that they are conducted rigorously by skilled researchers to shed further light on the consistency and generalisability of Dweck's original findings.

Li and Bates' (2019) study revealed no significant correlation between students' reported mindsets and their grades or academic performance. According to Yeager and Dweck (2020), these null effects could be attributed to several explanations. For instance, it is possible that the researchers used a smaller convenience sample in the China study, which may have limited the

informativeness of the results. Additionally, the choice and translation of the mindset items could have influenced these findings.

Sisk et al. (2018) found a significant but small association between mindsets and academic performance in their meta-analysis study. Yeager and Dweck (2020) explain that it is crucial to understand that the results of the investigation conducted by Sisk et al. in 2018 were diverse (indicated by a high heterogeneity value of 96.29%). Consequently, this heterogeneity influenced the random effects meta-analysis, resulting in a similar weight given to small studies from convenience samples and more generalisable studies. Specifically, three comprehensive datasets accounted for a significant portion (81%) of the participant data in the Sisk et al. (2018) meta-analysis. Still, their contribution was treated almost equally as correlations from studies with 10 participants or fewer sample sizes.

The connection between mindsets and achievement has been consistently observed and can be applied to various contexts. However, it is crucial to recognise that this connection cannot be simplified by a single effect size (Yeager & Dweck, 2020). The expectation that mindsets would have a stronger influence on individuals facing academic difficulties has generally been supported. Nonetheless, there are still unexplained differences in the impact of mindsets across cultures and within cultures, which should be considered as a basis for future theoretical developments in mindset research (Yeager & Dweck, 2020).

Some mindset interventions have not yielded successful outcomes. In a study conducted by Rienzo et al. (2015), the impact of a face-to-face growth mindset intervention on a group of 286 5th-grade students was investigated. The intervention method used in this study was similar to a previous investigation by Blackwell et al. in 2007. Although the growth mindset group in Rienzo et al.'s (2015) study showed improvement in academic achievement compared to the

control group, the results were nonsignificant. However, Yeager and Dweck (2020) argue that the estimated effect size was larger than the effects observed in online growth mindset interventions. Therefore, it is important to acknowledge that Rienzo et al.'s (2018) study does not necessarily contradict the presence of mindset effects.

According to Yeager and Dweck (2020), diverse interventions were combined in a meta-analysis conducted by Sisk et al. (2018), including different research designs, such as nonrandomised and randomised trials, and some did not perform proper growth mindset interventions. The meta-analysis revealed a significant overall effect of mindset interventions, with a larger effect observed among students at risk for poor performance. However, similar to their meta-analysis of correlational studies, the Sisk et al. (2018) meta-analysis of interventions showed significant heterogeneity in the results (Yeager & Dweck, 2020). Determining the source of these heterogeneous findings in mindset research is challenging due to the simultaneous involvement of different populations, interventions, and contexts across various studies; therefore, metaregression is often unsuited for understanding these moderators (Yeager & Dweck, 2020).

In summary, Yeager and Dweck (2020) revisited the controversies surrounding the growth mindset and affirmed the robustness of mindset theory, highlighting consistent effects and promising effect sizes. They raise thoughtful questions regarding the existence of discussion around the concept of students developing their abilities. They implicitly urge the audience to consider that all children should have the opportunity to attend schools that prioritise and nurture their intellectual growth. Yeager and Dweck (2020) recognise the significant challenge of creating supportive environments for all learners and express hope that mindset research will play a crucial role in the development of conducive educational settings.

2.6.7 The Future of Growth Mindset Investigations

Dweck and Yeager (2019) highlight that after 45 years of mindset research, everything that has been learned is still only a foundation of what will be discovered in future years. Many questions still need to be answered, such as how best to spread growth mindset to people, how contexts establish students' adoption and application of a new mindset, or how to support incorporating a growth mindset in school cultures and institutions. Dweck and Yeager (2021) developed 'The Global Mindset Initiative', intending to create a program to support teachers in establishing a growth mindset culture in the classrooms. They highlight that investigations have shown that the positive effects of the growth mindset interventions rely upon whether the classroom culture can provide students with a proper environment to put into practice and take advantage of the growth mindset theory. They suggest that future research should focus on classroom cultures straightforwardly by designing experiments.

In the first paper of this initiative, Murphy et al. (2021) discuss how to enhance outcomes and equity by developing a growth mindset culture in educational institutions and classrooms. They highlight that in classrooms that provide a growth mindset culture, the educators generate a consistent meaning system for learners' goals, beliefs, mindsets and behaviours. The growth mindset cultures are created by inculcating the growth mindset beliefs and behaviours into regular habits and communications. In this manner, students and teachers can understand setbacks, challenges and learning in the classroom and outside of it, which can eventually benefit the academic paths in the long term. Murphy et al. (2021) focus on the teachers' role and practices in creating the growth mindset cultures and present a framework that merges practices and research. They also outline future research questions to create successful growth mindset cultures that prompt motivation and learning in educational settings.

2.7 The Importance of Mindsets in the Educational Context

Some studies have found that mindsets are related to many motivational constructs and academic achievement; thus, developing growth mindsets has become very popular in educational contexts. Mueller and Dweck (1998) reported that praising students' intelligence instead of hard work debilitates students' motivations and performances. Dweck (2008, 2010, 2017) points out that research has proved that mindsets play a crucial role in education. For example, mindsets can predict math and science achievement over time, change students' mindsets, increase achievement as well as decrease achievement differences between students. Blackwell et al. (2007) state that incremental beliefs might help to value effort, which is necessary to enhance language ability, and to establish mastery goals, which can help to face language barriers with more optimism and persistence.

2.7.1 Teachers' Mindsets

Teachers with fixed mindsets believe that they do not have to learn more and only spread their knowledge; they believe that they can get to know their students only by looking at their first performance, do not believe in improvement, do not feel responsible for students' achievements, and think that they cannot influence their students (Dweck, 2017). Also, Rattan et al. (2012) state that teachers with fixed mindsets might be less motivated and less able to encourage students' motivation. On the other hand, Dweck (2017) states that teachers with growth mindsets love learning about what they teach, about themselves, and about life. They teach students to set challenges, love learning, work hard, set high standards for the students and care about every one of them. They guide students, tell them the truth about where they are and provide them with the necessary tools to get where they want and work hard to get there.

Dweck and Leggett (1988) explain that teachers with fixed mindsets tend to attribute students' performances to innate intelligence, while teachers with growth mindsets tend to recognise students' outcomes as chances to enhance their competence. Also, fixed mindset teachers are likely to determine students' behaviours as stable characteristics considering the individuals' past experiences. On the other hand, growth mindset teachers tend to pay attention to students' performances all the time (Plaks et al., 2001). These different teachers' attributions might determine how educators treat their students (de Kraker-Pauw et al., 2017) and might shape the students' mindsets (MacDonnell Mesler et al., 2021).

Some investigations in the language learning field suggest that some teachers possess entity beliefs. For example, Peacock (2001) states that many language teachers believe that language aptitude is an innate ability which can predict second language learning success. A longitudinal study investigated the changes in second language learning beliefs of 146 trainee ESL teachers in Hong Kong using Horwitz's Beliefs About Language Learning Inventory (BALLI). He found out that participants' incorrect beliefs about language learning did not change during the three years that the investigation lasted. Some of these beliefs that did not change are related to language mindsets. For example, number 1: "It is easier for children than adults to learn a foreign language"; number 15: "I have foreign language aptitude (a special ability for learning foreign languages)"; and number 32: "People who speak more than one language well are very intelligent". These beliefs seem to indicate that participants believe that age and intelligence are essential components of language learning. This investigation suggests that it is vital to eliminate incorrect beliefs about language learning in Teaching English to Speakers of Other Languages (TESOL) programs.

Similarly, Mercer and Ryan (2010) found that pre-service teachers believed that people need ability and effort to learn a new language. Zarrinabadi and Afsharmehr (2022) investigated the language learning mindsets and educational practices of twenty Iranian teachers by conducting semi-structured interviews. Results showed that most teachers (i.e. 11) had mixed mindsets (the belief that ability and effort are essential for learning), some of them (i.e. 6) had fixed mindsets, and a few of them (i.e. 3) had fixed mindsets.

This mixed mindset tendency is also observed in teachers from other areas of knowledge (also see section 2.8.1), distinct from language learning. For example, Rissanen et al. (2019) conducted a case study with a Finnish teacher. Even though the Finland educational system favours a growth mindset education, the participant of this investigation, who was wholly familiarised with this system, mainly had a mixed mindset. This was assessed through a mixed methodology using Carol Dweck's scale of intelligence (1999) and open-ended questions.

Dweck (2015) explains how teachers can get to possess a growth-oriented mindset. She claims that it is important to acknowledge that individuals are a mixture of growth and fixed mindsets; therefore, she suggests that educators can adopt a deeper growth mindset by staying closer to their fixed mindset ideas and performances in the classrooms. For example, Dweck (2015) recommends watching for fixed-mindset reactions at the moment of facing challenges, setbacks, or when students do not pay attention or are not learning. In those situations, she proposes that educators have to think about how they feel, evaluate whether they are looking for excuses, and think if those situations make them feel defensive or angry instead of taking those problematic situations as opportunities to learn. She suggests that it is better for teachers to recognise and accept their feelings and thoughts to work "with and through them" (Dweck,

2015). She highlights that if educators suppress their fixed mindsets, they will create false growth mindsets.

2.7.2 Can Teachers' Mindsets Influence Students?

At the interpersonal level, teachers' beliefs might influence learners' beliefs (Lou & Noels, 2017a, 2019). Teachers can shape students' views of their abilities by using precise words in their language (Schmidt et al., 2015). Teachers with fixed-oriented mindsets tend to praise the qualities of the students (Rissanen et al., 2018a) or comfort learners if they fail due to their poor ability (Rattan et al., 2012). Also, teachers with a fixed mindset about students' abilities might not see themselves as responsible for students' performances (Dweck, 2017).

Growth mindset teachers, who transmit growth mindset messages to their students, highlight that intelligence and other features are malleable (Boaler, 2013; de Kraker-Pauw et al., 2017). Educators can also transmit growth messages by reacting to students' failures and mistakes. For example, using the word "yet" to emphasise that if they did something wrong, they would be able to do it later: You can't do it *yet* (Dweck, 2010, 2017). Moreover, teachers must express that mistakes and failures are essential in the learning process (Boaler, 2013; Haimovitz & Dweck, 2016). Also, teachers can spotlight how their students' outcomes can be achieved or improved (de Kraker-Pauw et al., 2017).

On the contrary, teachers who transmit fixed messages in the classrooms point out that intelligence and other features are immutable (Rattan et al., 2012). Fixed mindset teachers tend to praise students for their personal characteristics, such as being smart, intelligent, and fast (Dweck, 2010; de Kraker-Pauw et al., 2017; Rissanen et al., 2018a). They can comfort learners if they fail due to poor ability (Rattan et al., 2012). Also, teachers can transmit fixed messages by focusing on the outcome while overlooking the learning process (de Kraker-Pauw et al., 2017;

Dweck, 2017). For instance, they might highlight students' grades (de Kraker-Pauw et al., 2017; Park et al., 2016) and no mistakes (Boaler, 2013). Teachers with a fixed mindset about students' abilities might not see themselves as responsible for students' performances (Dweck, 2017; Patterson et al., 2016).

Yeager et al. (2022) studied whether growth mindset interventions for students worked better with or without the teachers' support. This investigation analysed data obtained from the National Study of Learning Mindsets (NSLM, Yeager, 2019). The experiment, with treatment and control groups, took place in the USA with 9th-grade students. Nine thousand one hundred sixty-seven students and two hundred and twenty-three maths teachers participated in this research. The intervention consisted of 2 sessions of 25 minutes, each occurring between 1 and 4 weeks apart. The 50-minute intervention was successful in changing the students' mindsets. The treatment group, who received the growth mindset intervention, obtained lower fixed mindset scores after the intervention than the control group.

In general, the intervention was successful in increasing math grades, but not for all students. Students who participated in the growth mindset intervention and had teachers with a fixed mindset orientation did not improve their math gains compared to the control group. Only the students who received the growth mindset intervention and were taught by growth mindset teachers obtained significant improvements. Besides, students who had a fixed mindset orientation and then had classes with growth mindset oriented teachers also increased their performances more than students who already had a growth mindset and were taught by growth mindset teachers. This indicates that students with fixed mindsets have more possibilities to benefit from growth mindset interventions (see Walton & Yeager, 2020). Results concluded that students' growth mindsets must be supported by their teachers' growth mindsets.

Claro et al. (2021) investigated the influence of teachers with a growth mindset on students' academic achievement using a nationwide sample of students from 8th and 10th grades in Chile in 2017. A total of 292,960 students and 24,636 teachers took part in this study. They discovered that students who received classes from growth mindset teachers increased their standardised scores in all the investigated areas (maths and science for 8th-grade students and Spanish and social sciences for 10th-grade students). These effects were larger on students with high GPAs, especially those studying at low socioeconomic schools. Regarding research reporting the relationship between students' mindsets and GPAs, previous studies found that growth mindset interventions were more successful for students with lower GPAs (e.g. Paunesku et al., 2015; Yeager et al., 2019). Claro et al.'s (2021) study did not perform any intervention to promote the students' growth mindsets, implying that students with lower marks might benefit from specific instruction to foster growth mindsets and, eventually, their academic outcomes.

Claro et al. (2021) found that teachers of Spanish's growth mindset (Spanish as a first language) correlated positively with pedagogical practices. This finding suggests that teachers with different mindsets (e.g. fixed or growth) might have different educational practices, which may impact students' academic outcomes (Claro et al., 2021). Another prospect is that the educators' growth mindset helps develop or support students' growth mindset (Schmidt et al., 2015), which might help to enhance the students' learning (Claro et al., 2021). Educators with growth mindsets might shape their own behaviours and educational practices (Claro et al., 2021; Rattan et al., 2012; Schmidt et al., 2015) and might make an extra effort to change their pedagogical practices and behaviour (Claro et al., 2021; Rattan et al., 2012; Rissanen et al., 2019). Similarly, in a qualitative study, Zarrinabadi and Afsharmehr (2022) concluded that

teachers' mindsets about second language learning influenced their pedagogical practices regarding strategies, homework tasks and praise.

MacDonnell Mesler et al. (2021) investigated whether teachers' growth mindsets were associated with students' growth mindset development. They studied 57 teachers and 1,957 students for one year. To analyse the relationship between teachers' and students' mindsets, all participants answered a survey at the beginning of the year, and students responded to another one at the end. They assessed the data from the teachers' survey and the survey students took at the end of the school year. Four items assessed students' mindsets (see Farrington et al., 2013). Teachers' mindsets were assessed by their responses to some questions about how they would proceed with a struggling student. Also, they answered three items to see how much they agreed or disagreed with the belief that students' intelligence is not modifiable (see appendix in MacDonnell Mesler et al., 2021). Two regression models concluded that growth mindset teachers had a moderate positive and statistically significant relationship with students' growth mindset development over the school year. The association was positive and statistically significant. MacDonnell Mesler et al. (2021) argue that their finding is important as it suggests that teachers' characteristics, including their mindsets, can influence their students' development. Also, it suggests that it is important to incorporate mindsets' interventions for teachers as well. This could also include the growth mindset development component in teacher education and professional development.

According to de Ruiter et al. (2020), there is not much information about how teachers and students co-regulate their mindsets in the classroom setting through their interactions. Following this need to investigate teachers' and students' mindsets in naturalistic settings, they propose a coding scheme to examine teachers' and students' dynamics of verbalisations related

to mindsets. They called this coding scheme the STEAM (Student-TEAcher-Mindset), which offers researchers and teachers a useful tool for analysing how a person's language with a specific mindset orientation can vacillate in interactions with teachers and peers. The STEAM coding scheme can enlighten how learners respond to teachers' mindset-related verbalisations and how educators shape mindset-related behaviour in the long term.

2.7.3 Can Peers' Mindsets Influence Students' Mindsets?

Some studies also suggest that peers' mindsets can impact students' mindsets. A decade ago, Donohoe et al. (2012) found that participants had different perceptions of what their peers and parents would think about them if they worked hard. They were concerned about their peers' reaction to them for working hard (e.g. mocking them) while they might receive a reward from their parents. They suggested this conflict could be an interesting field for future research.

Sheffler and Cheung (2020) examined the role of peer mindsets in students' learning with 133 undergraduate students of diverse ethnic backgrounds. Participants were assigned to one of the two different experimental conditions and interacted with trained individuals with fixed or growth mindsets. Then, participants had to complete a problem-solving task and answer a survey. Results showed that students who interacted with growth mindset peers demonstrated higher task value on the problem-solving task than those who interacted with fixed mindset individuals. This study indicates that peer mindsets could influence how other students value tasks; thus, peers should also be considered in interventions to promote growth mindsets.

Sato (2021) investigated language mindsets in the communicative interaction context between L2 learners with 42 university EFL learners in Chile. The participants were divided into three groups concerning their mindsets (categorised using the LMI), Growth-Growth (G-G), Growth-Fixed (G-F), and Fixed-Fixed (F-F). There were seven pairs of students in each group.

The students had to work on some decision-making tasks. The research focused on analysing problem-solving behaviour and collaborative learning. Results showed that growth mindset students were more likely to initiate and resolve language-related episodes among the three pairing patterns, while fixed mindset students engaged the least. The G-G pairs solved the most extensive number of language-related episodes compared to G-F and F-F. Nevertheless, only three (out of seven) pairs of growth-mindset students engaged in collaborative interaction, and some of them demonstrated negative behaviours. In short, growth mindset learners contributed to problem-solving, but it did not involve collaborative learning all the time

The results of the last two investigations (Sheffler & Cheung, 2020 and Sato, 2020) are different. However, it is important to highlight that the methodology of both studies is also distinctive. In Sato (2020), the analysis was conducted in a naturalistic setting (growth mindset students acted as they would typically do), while in Sheffler and Cheung's (2020) investigation, the growth (versus fixed) individuals were part of the manipulation (they had learned how to promote growth mindsets). Both studies suggest that it might be helpful to teach students about the growth mindset theory and how to develop growth mindsets.

2.7.4 Strategies to Develop Growth Mindsets

Many studies have concluded that teachers play a fundamental role in the development of growth mindsets (e.g. Dweck, 1999, 2008, 2010, 2017; Lou & Noels, 2016; 2017a, 2019; Noels & Lou, 2015; Schmidt et al., 2015; Yeager & Dweck, 2012; Yeager & Walton, 2011; Zhang et al., 2017). For example, Yeager and Walton (2011) reviewed mindset interventions and concluded that the teachers' role is fundamentally important as they have to develop effective, and at the same time, persuasive tactics able to transmit psychological beliefs. There will always be obstacles when learning a new language; therefore, Yeager and Dweck (2012) claim that

teachers have to be able to advise learners so that they can meet challenging situations efficiently and cultivate resilience.

Some investigations suggest that teachers do not know what strategies to implement to help students to develop growth mindsets. According to Dweck (1999, 2017), some teachers tell students that they can do everything they want; however, they do not help them develop the necessary skills or do not provide them with resources to progress and reach their goals. Yettick et al. (2016) surveyed more than 600 K-12 teachers in the United States of America. They found that most teachers believe in the potential of growth mindsets and acknowledge a positive relationship between growth mindsets and students' outcomes and behaviours. Nevertheless, 20% of them think they are good at promoting growth mindsets; and only 5% strongly agreed with knowing strategies and solutions to apply to students with fixed mindsets. This research suggests that educators need effective training to foster growth mindsets in schools.

The development of growth mindsets has been considered an essential tool that can be implemented in education; therefore, teachers need to have growth mindsets and apply accurate strategies. Dweck recommends some strategies that could lead to growth mindsets in the classrooms. For example, Dweck (1999, 2010, 2017) states that teachers must praise the effort instead of the intelligence. Carol Dweck's investigations (e.g. 2017) have demonstrated that when teachers praise intelligence or ability, students develop fixed mindsets and do not want to accept challenges because they do not want to be questioned for their talent. Instead, people who are praised for their effort prefer a challenge to learn. Dweck (2008) suggests teaching the new science of brain plasticity, researching people who have contributed to humanity due to their passion and dedication, emphasising the importance of challenge, effort and making mistakes, and providing praise and feedback throughout the learning process and not only at the end of it.

Educators need to express verbally that they have a growth mindset (Dweck 2010, 2017). Teachers should not label students because positive and negative labels usually affect students with fixed mindsets. If they are labelled as intelligent, they do not want to accept challenges to continue looking smart; if they are labelled as bad students, they think they will always be like that, then in both cases, the effort is unnecessary for them (Dweck, 2017).

Rattan et al. (2012) discovered the importance of teachers' feedback in manipulating mindsets. In study 4, participants had to imagine they got a low result and received different types of feedback (comfort, strategy and control) from the teacher. After that, they answered a questionnaire to evaluate the Perceptions of an Environmental Entity Theory (PEET) scale and then responded to four items that assessed the degree to which they felt their teacher had low expectations for their future. Results demonstrated that students who answered to the comfort-oriented feedback manipulation perceived the professor's entity theory of intelligence and reported lower expectations and motivation. This research suggests that educators should not give comfort feedback to students just to make them feel good because these messages harm students' performances. Comfort feedback that intends to justify a lack of ability can be as disappointing to students as obtaining a low grade.

Also, some authors recently created specific material for teachers who want to apply growth mindsets in their classrooms, basing their knowledge on Carol Dweck's research. For example, Brock and Hundley (2016) provide guidance and activities for teachers who want to use the benefits of growth mindsets in their classrooms by giving different strategies to develop each month of the year. Moreover, Gershon (2016) offers many procedures, activities and techniques to encourage growth mindsets in the classrooms.

2.7.5 Strategies to Develop Growth Language Learning Mindsets

2.7.5.1 Everyday Interactions.

Lou and Noels (2016, 2017a) and Noels and Lou (2015) conclude that educators can influence students' language mindsets through the manner by which they interact with students. For example, Noels and Lou (2015) highlight that messages about the malleability of intelligence can be delivered directly by the teacher and electronically. They give as an example a study which involved 250,000 Khan Academy students. They state that while these students were learning math concepts online, they could see an onscreen head that said, "when you learn a new kind of math problem, you grow your math brain" (as cited in Noels & Lou, 2015, p. 49). They claim that this intervention was successful as the students who saw this message reported better results than the students in the control group. Also, Rattan et al. (2015) explain that research has proved that in-class activities, online materials, games and videos that foster growth mindsets positively impact participants' grades.

To develop growth language learning mindsets, EFL teachers also should apply strategies that are more specific to the language learning field. Mercer and Ryan (2010) recommend that EFL teachers discuss with second language learners their beliefs about learning a new language to check whether these beliefs might prevent them from having a growth mindset and help them change their wrong conceptions. They suggest talking about language learning in general and focusing on more specific language domains such as writing, grammar and pronunciation. They claim that teachers might find learners believing that for successful language acquisition, the effort is unnecessary because language acquisition occurs only through natural acquisition in foreign-speaking countries. Besides, learners might think that learning a language in a classroom allows just low language achievement. Ryan and Mercer (2011) state that teachers have to make

students understand that even though going abroad is a good way to put into practice their second language skills, it is not the only way to improve. There are plenty of opportunities to enhance their abilities by studying in their classroom settings through conscious learning situations.

In classes, teachers have to praise effort, hard work and personal progress instead of emphasising natural talent (Lou & Noels, 2016, 2017a; Mercer & Ryan, 2010; Noels & Lou, 2015; Ryan & Mercer, 2011). Zarrinabadi et al. (2021) investigated the effects of praising Iranian EFL learners' (N = 63) intelligence and effort. The quantitative analysis (paired-samples t-tests) showed that praising the effort improved the participants' growth mindsets (and WTC and communicative competence and diminished speaking anxiety). In contrast, praising intelligence and no praise at all diminished learners' growth mindsets (and WTC and increased speaking anxiety). Qualitative data showed that praising the effort improved the learners' (N = 12) WTC by enhancing growth mindsets and decreasing speaking anxiety.

Lou and Noels (2019) also offer some recommendations for developing growth language mindsets. They highlight that educators should reflect on the motivational impact of their teaching and provide some examples. According to them, teachers should help students to set mastery goals, make attributions by concentrating on their learning process, make students feel well by taking risks and making mistakes and give them constructive feedback. They state that feedback should recognise learners' progress, for example, by emphasising how the test contents are connected to their language growth. They also recommend giving extra points to the students who amend assignments and quizzes since corrections stimulate enhancement. Moreover, they highlight that students who do not receive a lot of performance feedback might not be sure whether they can learn a new language or not. However, Lou and Noels (2019) recognise that more research is needed to examine the effectiveness of these strategies to encourage growth

mindsets and how learners would respond to teachers' progress information and support for making mistakes.

Williams et al. (2021) created a book for English teachers and pre-service English teachers. The book aims to inspire educators with ideas on how to increase learners' psychological traits (e.g. motivation, willingness to seek opportunities for language learning, and growth mindsets) by engaging in practical language work. The activities were designed mainly for secondary students, although adult learners can also benefit from them. Chapter 3 refers specifically to how to facilitate a growth mindset (for English levels B1 and upward). Eight different activities allow students to reflect on their language mindsets, learn about the benefits of growth mindsets, not giving up, promote growth mindsets in their classmates, change negative statements into positive ones, the importance of perseverance to succeed after failure, develop positive beliefs about their learning capabilities and reflect about what made them successful in the past to transfer those ideas into language learning. In the meantime, students can improve their English, for example, by practising present, past and conditional tenses and enriching their vocabulary.

2.7.5.2 Learning Strategies.

Mercer and Ryan (2010) also highlight that students' effort is effective as long as they know the proper strategies to improve their abilities. Hence, teachers have to praise students' hard work and effort as well as provide students with tools, techniques and strategies so that students' effort can cause improvement. When learners already believe that they can learn a new language, are motivated and have the will to learn, then they need to know what to do, which, among other things, involves knowledge of strategies (Williams et al., 2015). According to Cohen (2012), strategies are "thoughts and actions consciously chosen and operationalised by

language learners to assist them in carrying out a multiplicity of tasks from the very onset of learning to the most advanced levels of target-language performance" (p.136).

There are different types of strategies, for example, cognitive, social, compensation, affective and metacognitive. Williams et al. (2015) explain and exemplify these strategies. Cognitive strategies are the ones that involve mental processes such as memorising, repeating and rehearsing information or analysing the way the target language works. Social strategies also help in communication, for example, asking for clarification. Compensation strategies help to deal with the individuals' lack of language knowledge, for example, using mime and gestures to make up for language students don't know or have forgotten. Affective strategies help to manage emotions, such as breathing deeply to control anxiety. Finally, metacognitive strategies regulate and control the learning process, for example, planning what to do and supervising progress. Rebecca Oxford (1990, 2011) provides examples to develop different strategies and meta-strategies in her books and summarizes research about learning strategies to develop reading, writing, listening, speaking, and grammar.

Learning strategies are very important as students can learn how to learn and enhance their own learning proficiency and self-confidence; therefore, teachers must learn manners to facilitate this process (Oxford, 1990). Educators should provide environments that highlight the importance of learning so that learners can ask questions, take risks, learn from mistakes and figure out things by themselves (Williams et al., 2015). In addition, learners have to choose proper strategies for managing their tasks, and in this way, they can also have more control of their learning process (Williams et al., 2015).

Williams and Burden (1997) acknowledge that some investigations have overlooked the notion of learning strategies but, at the same time, recognise that there has been a growing

interest in cognitive strategies among psychologists, which has derived from cognitive psychologists. Also, they highlight that one of the educational purposes is to develop autonomous learners who need to develop proper skills and strategies for successful learning; therefore, learning how to learn through strategies becomes an important notion within second language psychology.

Metacognitive strategies, along with growth mindsets, have shown a positive effect on students' engagement. Wang et al. (2021) examined the association between growth mindsets and metacognition on school maths engagement with adolescents from socio-economically disadvantaged educational institutions. They conducted three longitudinal studies with different numbers of participants (207, 897 and 2,325) between 11 and 15 years old in the USA. The authors used adapted items from "the Metacognitive Self-Regulation Scale of the Motivated Strategies for Learning Questionnaire" (Pintrich et al., 1991, as cited in Wang et al., 2021, p. 6). Maths mindsets were measured using fixed items from the Math Ability Mindset Scale used previously in "Degol et al., 2018" (as cited in Wang et al., 2021, p.6). Maths engagement was measured using items adapted from the Math Engagement Scale used previously by "Wang et al., 2016" (as cited in Wang et al., 2021, p. 8). Growth mindset students only predicted greater maths engagement when they possessed metacognitive skills, which help students to reflect and be conscious of their learning development. These findings suggest that students might need to have metacognitive skills to comprehend their growth mindsets. Therefore, growth mindsets and metacognitive skills might be developed together to reinforce each other's effects jointly. Metacognitive skills, such as planning, monitoring and evaluating, are essential so that students can understand and regulate their learning while endorsing a growth mindset about maths learning. The authors highlight both elements contribute exceptionally to maths engagement.

2.8.4.3 Formal Interventions.

Lou and Noels (2016) and Noels and Lou (2015) also suggest influencing learners' growth mindsets through workshops and other formal interventions. Lou and Noels (2016) state that, according to their study, it is helpful to include in the interventions scientific evidence which proves that language ability can increase (as in Blackwell et al., 2007). Nonetheless, Lou and Noels (2019) also advise being realistic about the interventions. They highlight that even though mindset interventions have demonstrated to help students to perform better at school, they are not the remedy for all the struggles. These interventions do not modify individuals' learning environment; instead, they modify the manner learners think about their ability and learning. In short, mindset interventions must be considered a complement to other structural and instructional reforms in second language learning.

2.8.4.4 Misunderstanding that Can Create a False Growth Mindset.

Teachers must understand fully how to develop growth mindsets, or they might make the big mistake of developing "false growth mindsets". According to Dweck (2010, 2017), to foster growth mindsets in the classroom, every word and every action sends a message to the students. For that reason, teachers must be extremely careful with their words and attitudes toward learners.

The first misunderstanding that can generate false growth mindsets occurs when teachers praise actions that do not help learners to generate growth mindsets. For example, Dweck (2017) states that some teachers think that they have to praise the process and not the outcome. This belief is incorrect because teachers have to praise both things. They have to praise the process and, at the same time, link that to the outcome so that students can see that the result was

possible thanks to the process that helped them to learn. Moreover, Dweck (2017) highlights that some people believe that they have to praise the effort without even noticing whether the effort is yielding benefits or not. Teachers do not have to praise students as a consolation prize when they are not learning; developing a growth mindset is essential to praise the hard effort that brings good results (Dweck, 2015, 2017). Teachers can appreciate students' effort but do not have to overestimate it. For example, when students are confounded, teachers could say: "Let's talk about what you've tried, and what you can try next" (Dweck, 2015).

Dweck (2015) highlights that believing that a growth mindset is only related to effort is incorrect. Also, Lou and Noels (2019) explain that teachers should not overestimate effort and think that language ability can be increased easily and fast only by effort. It is vital that teachers look for the reasons why the effort is not productive so that they can guide and provide students with new strategies and tools to help them in the learning process (Dweck, 2017). Effort and the use of proper strategies are both necessary to improve. Learners have to experiment with different strategies, and they need to ask for help when they need to be able to learn and improve (Dweck, 2015).

Other problems occur when educators believe that developing a growth mindset is the students' responsibility and blame students for having a fixed mindset. Dweck (2017) claims that teachers, as educators, have the responsibility to create growth mindset environments. Students have to feel that teachers believe that their abilities can grow and that teachers are dedicated to helping them to learn. Teachers' role is to help students thrive and not find excuses or reasons to say they cannot learn.

Finally, teachers with growth mindsets sometimes do not foster that mindset in their students; for example, they praise students' intelligence or do not praise the process (Dweck,

2017). This might be because they do not know the proper strategies (see Yettick et al., 2016) or simply because, sincerely, they do not believe in this approach. Dweck (2015) recognises that some teachers claim to have a growth mindset because it is just the right thing to have and believe. However, many of them do not really believe in this. She highlights that it is not enough to declare to have a growth mindset to actually possess this belief and states that "the path to a growth mindset is a journey, not a proclamation" (Dweck, 2015).

Some studies seem to be linked to this inconsistency. For example, de Kraker-Pauw et al. (2017) focused on the relationship between teachers' mindsets and feedback. The participants were 23 teachers who taught maths and Dutch to high-school students. They found out that growth-mindset teachers provided less feedback than fixed-mindset teachers and concluded that teachers who have growth mindsets do not ensure to provide growth feedback. Also, in a study developed in the United States, Schmidt et al. (2015), apart from discovering that teachers' role is vital for supporting Brainology intervention, found out that growth mindset teachers do not always promote growth strategies. Positive long-term effects were achieved by the students whose teacher was able to encourage growth mindsets in the classroom. The two teachers who participated in this study possessed growth mindsets; however, they differed in the manner they promoted growth mindsets among their students. One of them effectively communicated the growth mindset message, for example, explaining the importance of goals, effort and study strategies. The other teacher could not transmit these messages and failed to offer students strategies to deal with the contents they did not understand. In conclusion, these two studies demonstrate that teachers with growth mindsets might not know the proper strategies to promote growth mindsets in their students.

Teachers must know what to do as well as what not to do to help to foster growth mindsets. The right mindset and the proper teaching allow people to learn beyond their expectations (Dweck, 2017). Therefore teacher's role is crucial to help learners to maximise their potential, believe in themselves and fulfil their dreams.

2.8 Mindsets and Cultural Issues

Lou and Noels (2019) highlight that mindsets are influenced not only by learners' history and individual factors but also by different systems. They explain that language learning beliefs exist in the macrosystem (in the culture), in the mesosystem (e.g. schools and social media), and in the microsystem (e.g. in the interactions with parents, teachers and other peers).

Lou and Li (2017) discuss mindsets at various ecological system levels. They point out that at the macro-social level, individuals' language learning beliefs might result from the sociocultural and sociostructural systems within which they inhabit. Lou and Noels (2020) argue that learners do not have the same mindset in different contexts. For example, according to Byers–Heinlein and Garcia (2015), it might be possible that individuals who live in multilingual societies might have growth language mindsets as they can see that language ability can be modified.

Some authors believe that culture might play a significant role in mindset formation. Investigations from different parts of the globe show that people from different cultures have different types of mindsets. Lou and Li (2017) state that growth mindsets tend to be more dominant in collectivistic cultures, such as Asian countries, rather than in individualistic cultures, such as North American and Western European countries. Heine et al. (2001) demonstrate the difference between cultures in challenging situations. They found that East Asian learners used strategies that prioritised persistence, whereas North Americans showed tendencies that

highlighted individual self-esteem. Mercer and Ryan (2012) investigated language learning mindsets in Japanese and Austrian EFL learners. They found out that all Japanese learners tended to have a growth mindset and emphasised and valued effort and hard work to triumph, while Austrian learners tended to have more varied mindsets. Noels et al. (2014) explain that cultural values might be behind these differences. They claim that some societies that derive from Confucianism, like Asian cultures, value effort and persistence, while Western cultures reinforce internal ability and autonomy in the learning process (as cited in Lou & Noels, 2020, pp 19-20).

In addition, according to Lou et al. (2017), different investigations suggest that North Americans are not as critical and prevented as East Asians and can easily eliminate positive characteristics and identify negative changes. These North Americans' features allow seeing that they might have beliefs about negative changes; therefore, some might have decremental mindsets: the belief that intelligence can be lost.

Sun et al. (2021) compared Chinese and US students concerning their mindsets and academic achievement. They argue that even though Chinese students hold a more malleable view of school success than US students, they tend to have more fixed mindsets about intelligence (compared to US students). They claimed that these cross-cultural differences are valid across multiple samples and connected to how individuals conceptualise intelligence and its association with achievement. Study 1 investigated cultural differences in mindsets between the USA and Chinese using samples of PISA 2018. The study involved 4,663 participants from the USA and 11,770 from China. Mindsets were evaluated using 1 item from the Implicit Theory of Intelligence Questionnaire (Dweck, 1999) and achievement using the maths test results. Study 1 established that students’ mindsets from the USA were more growth-oriented than Chinese

individuals. The relationship between growth mindsets and maths grades was positive, with a medium to large effect for USA students, while slightly negative for Chinese students. In study 2, they replicated study 1 results, but the participants were college students from the USA (n = 189) and China (n = 171). This study revealed that cross-cultural variation between individuals' mindsets from the USA and China concerned participants' definitions of intelligence. This research identified that Chinese students dedicate notable amounts of effort to school activities regardless of their fixed mindsets (which might explain the negative association between their mindsets and academic achievement). Both studies showed cross-cultural differences in individuals' mindsets and that the relationship between mindsets, academic motivation and success might vary across different cultures.

Even though previous studies suggest that individuals from different cultures (e.g. East/West) may exhibit distinct mindsets, it is also important to avoid over-generalisation and acknowledge cultures' dynamic and diverse nature. For example, Li and Bates (2019), who conducted research with participants from a collectivist culture, found that the individuals studied did not predominantly demonstrate a growth orientation. Instead, their scores were distributed across a wide range and followed a normal distribution, with an average consistent with previous reports from the United States. Therefore, it is essential to recognise the complexity of culture, such as the concepts of hybridity and sub-cultures, to gain a comprehensive understanding.

Matsumoto and Juang (2016) explain that culture is a complex concept comprising different aspects, such as values, beliefs, norms, traditions, language, and social practices. It is essential to recognise that cultures are not uniform entities but rather evolving and heterogeneous, influenced by historical, social, and individual factors. As a result, mindsets

within a culture can exhibit substantial variations due to factors like globalisation, migration, urbanisation, and exposure to diverse cultural influences.

A useful framework for examining the complexity of culture is the concept of hybridity. Bhabha (1994) introduced the concept of cultural hybridity in his postcolonial and cultural studies research. It pertains to how colonised individuals adopt and modify the coloniser's culture, leading to a novel and distinct cultural identity that is not solely of the coloniser or the colonised. The concept of cultural hybridity has been employed to depict the encounters of ethnic youth and individuals of mixed heritage who navigate diverse cultural contexts, although their experiences may vary despite sharing certain similarities (Marotta, 2020). Therefore, it can be suggested that multiple cultural backgrounds, experiences, and influences can also impact individuals' mindsets.

Additionally, it is essential to acknowledge the existence of sub-cultures within broader cultural contexts. Sub-cultures represent distinct groups within a society that share common characteristics, values, and practices that differentiate them from the dominant culture (Hebdige, 1979). These sub-cultures may also have their own unique mindsets and perspectives.

In conclusion, mindsets are shaped not just by the personal history and individual characteristics of learners but also by the cultural environment. Previous studies (e.g. Lou & Li, 2017) provide valuable insights into cultural variations in mindsets and suggest that culture may play a significant role in mindset formation, as individuals from different cultures may have different types of mindsets. Nonetheless, it is crucial to acknowledge the intricacy of culture, including the notions of hybridity and sub-cultures, in order to develop a thorough comprehension. It is essential to avoid over-generalisation and recognise the dynamic and diverse nature of cultures, as mindsets within a culture may display significant differences

because of various factors such as migration, globalisation and exposure to a wide range of cultural influences.

2.8.1 Chileans' Mindsets

According to a study developed by the British Council (2015), the factors affecting English language learning in Chile are the following: size and geography, education and English reforms, teacher training, economic development, income inequality, English testing, technology, exposure to English, attitudes and motivations, and employability. Among them, attitudes and motivations are the most important conductors and possible impediments to learning English as a second language. According to this investigation, Chileans are recognised as timid, especially when learning a new language; therefore, the low reliance and fear of embarrassment might decrease their motivation to learn English. Half of the 1,000 respondents who answered the survey conducted by the British Council (2015) said that they had not learned English and 20% of them said that they could not do it due to their lack of language ability.

Elige Educar (2017) collected data from 1,000 Chilean teachers to know the expectations, assumptions and beliefs teachers held around their students' learning process and identified how they could be associated with other aspects of their work. 81.1 % of the teachers agreed or totally agreed that it is possible to have educational achievements even with the students who put up the most resistance; therefore, according to this, growth mindsets predominate among Chilean teachers. However, when teachers were asked questions about the potential of their students, it is possible to see more heterogeneity in the results because almost one-third of the teachers demonstrated to have fixed mindsets. For example, 33 % of the teachers agree or totally agree that talent is the best predictor of learning; 31 % of the participants think that students' intelligence is something that cannot be changed throughout their lives; 28.7% of the teachers

believe that in all the classes there is a group of students that will be left behind, no matter what teachers do; also 25.1% of the participants believe that there are students who, no matter how much effort they put in, they will not achieve the expected level of the class; and finally, 21.1% of teachers believe that when a student does not have the skills to a subject, it is better to low those students' expectations. According to Elige Educar's (2017) study, Chilean teachers possess different types of mindsets about the teaching-learning process.

Claro et al. (2016, 2021) conducted some studies using Chilean SIMCE datasets, which revealed some information about teachers' and students' mindsets. Claro et al. (2021) analysed a Chilean sample of 24,636 teachers and found that 89% had growth mindsets. Results in both students' datasets (N = 168,000 in the 2016 study and N = 292,960 in the 2021 study) have shown that students' mindsets are not as growth mindset oriented as their teachers. Claro et al. (2016) found that most Chilean students possessed fixed mindsets (fixed mindsets: 46.79%, mixed mindsets: 21.25%, and growth mindsets: 31.96%). Later, Claro et al.'s (2021) study found that 42% of the students and 66% of their parents had growth mindsets.

As explained previously (sections 2.6.2 and 2.7.2), these studies have found statistically significant relationships between students' mindsets and academic achievement (Claro et al., 2016) and teachers' mindsets and students' academic achievement (Claro et al., 2021). However, these studies have also revealed differences in students' socioeconomic status. Claro et al. (2016) found a relationship between family income and students' mindsets: students from lower-income families were less likely to hold a growth mindset than their wealthier peers. Students with growth mindsets got better results at every socioeconomic level; however, the scores of the poorest students who held growth mindsets were similar to those of the richest students who held fixed mindsets. This research suggests that students' mindsets might be able to intensify the

socioeconomic effects. Claro et al. (2021) found that 89% of teachers had growth mindsets in a more recent study. However, they also found a lower number of teachers with a growth mindset working in schools with low socioeconomic status compared to schools with high socioeconomic status. This suggests that there should be a change in teachers' mindsets to diminish the academic difference between low and high socioeconomic school status (Claro et al., 2021).

2.9 English in Chilean Education

2.9.1 Introduction

This section starts by describing the Chilean educational system to understand the different types of schools available nowadays and the urgency to improve state-funded schools' education quality. After that, the role of the English language in Chilean society will be explained to know why authorities aim to develop the English language among Chile's inhabitants. Then, pre-service teacher training information will be presented, including the requisites to enter this career and the contents prospective EFL teachers need to pass to obtain the title of English teacher. The following section regards ELT policy in Chile, describing some past reforms and actual policies. Chileans' level of English is reported by including information about its progress, the most updated data and the big difference in the results among students from different socioeconomic backgrounds. Then, some possible explanations and contributing factors for the English-level results are given in the next section. Later, measures taken by the government to improve English language education are shown, including the creation of policy changes and a special program to support pre-service and in-service teachers and students. Finally, the chapter summarises the main findings and explains why investigating language mindsets would be helpful in the Chilean academic context.

2.9.2 Chilean Educational System

Looking at some political and economic measures implemented in the last 40 years is necessary to understand the actual Chilean educational system better. Chile's education reforms, while not directly focused on English proficiency, have influenced how language teaching is administered. The dictatorship of Augusto Pinochet brought a neoliberal economy, and educational policies were affected by the freedom of choice policies (Barahona, 2015b). The education system was reformed, and the role of the state was reduced and promoted decentralisation. Consequently, the school system was divided into municipal government-funded schools; voucher schools subsided by the government (also called semi-private schools, which work with parents' co-payment); and private schools (fee-paying) (Matear, 2006). This decentralisation impacted municipal government, as they had to supply a schooling system using their funds and administer it without much support and expertise (Barahona, 2016b). Also, wealthier municipalities had better resources to administer schools more efficiently compared to the poorest ones. All this influenced the debilitation of the public school system and its educational achievement (Barahona, 2016b).

According to Molina (2021), students' enrolment in municipal schools has decreased in the last three decades in Chile (9% between 1986 and 1996 and 35% between 1997 and 2016). On the contrary, enrolment in voucher schools has increased (8% between 1986 and 1996 and 64% between 1997 and 2016). Meanwhile, fewer students have attended private fee schools over these years (between 6% and 10%). According to García (2017), students from the lowest income groups tend to enrol in public schools more than students coming from middle-class who usually enrol in voucher schools and private-subsidised schools. Even though many parents enrol their children in voucher schools aiming their kids to receive a better-quality education, they do

not get better results. Voucher schools have shown minimal to no impact on children's achievement (García, 2017).

Different studies (e.g. Brunner, 1997; Matear, 2006; Rojas et al., 2013) have demonstrated that poor educational achievement at schools is a factor related to socioeconomic background. Also, the school achievement level (in municipal or voucher schools) impacts the preparation to enter higher education. According to McEwan et al. (2008), the reform conducted by Pinochet's government caused stratification and inequality in accessing quality education. After 1990, democratic governments have made some reforms to overcome inequalities, promote social justice and equity and enlarge the entry of Chile into a global economy, investing in knowledge, skills and technology (Matear, 2006, p. 38).

2.9.3 The Role of English Within the Society

Spanish is spoken by 95.9% of the Chilean population (Cervantes Institute, 2021). Six indigenous languages are still in use, and a very small existence of some European languages (Arellano & Hatoss, 2023). Chile is located in South America, and it is mainly surrounded by countries whose official language is also Spanish. One may wonder why the government decided that Chileans need to learn English as a foreign language. Katharina Glas (2008) analysed the public discourse on learning English and concluded that economic considerations dominate it. For that reason, policies promote English as a global lingua franca (Arellano & Hatoss, 2023).

English is the language to continue strengthening economic relationships. Chile is committed to implementing market-oriented policies, broadening its worldwide trade connections, and actively participating in global affairs and hemispheric free trade initiatives (International Trade Administration, 2022). The country is part of the Pacific Alliance, the Rio Group, an associate member of Mercosur, a full member of the Asia Pacific Economic

Cooperation (APEC), and the Union of South American Nations (UNASUR) (International Trade Administration, 2022). In 2010, Chile became the 31st member to join the Organization for Economic Cooperation and Development (OECD), making it the second Latin American country, after Mexico, to be admitted into the organisation (International Trade Administration, 2022). In the last few years (2021-2023), some of the top exports of Chile have been copper, iron ore, fish fillets and pitted fruits, mainly exported to China, the United States, Japan, South Korea, and Brazil (OEC, n.d.). Some of the top imports of Chile include petroleum, cars, broadcasting equipment, delivery trucks, telephones and medical instruments, imported mostly from China, the United States, Brazil, Argentina, and Germany (OEC, n.d.).

Chile has a high demand for English Language Teaching (ELT) due to the growing necessity for English-speaking professionals, academics, and technicians to work in the country's expanding international industries. Mineral production, specifically copper, largely fuels Chile's economy. Still, the government is focused on economic diversification for a more prosperous and stable future, with education being a crucial component in achieving this objective (Icef Monitor, 2016). As part of this policy, Chile is moving towards greater integration with the global economy and a focus on bilingualism, with English being the primary second language to be embraced (Icef Monitor, 2016).

Therefore, English should be taught considering international communication, access to knowledge, participation in information networks and global trade (British Council, 2015; Matear, 2008; McKay, 2003), but also to enrich the development of the human being (Lizasoain, 2021). According to Arellano and Hatoss (2023, p.192): "For them [government authorities], it [English] is the language of business, tourism, research, technology, and influence due to the popularity of American movies, music, and media". The Chilean government aims to fulfil the

challenging goal of being the first bilingual (Spanish-English) South American country; consequently, training programs for EFL teachers are a priority (Arellano & Hatoss, 2023). Nonetheless, despite the efforts to enhance EFL education, this goal seems to be a utopia, as bilingual practices in Chilean society are far from being achieved (Barahona, 2016a).

2.9.4 Pre-service EFL Teacher Training

The great majority of EFL teachers in Chile have received training in English education. 78% of teachers have a professional degree in English, 16% are teachers with a mention in English (who have studied other pedagogies and have been trained to teach this language), and 6% are made up of professionals authorised by the Chilean Ministry of Education as translators, and have been authorised to practice pedagogy because of their knowledge of the language (Lizasoain, 2021).

Universities and a few professional institutes at a tertiary level offer training to become teachers of English as a foreign language in Chile (Ávalos & Aylwin, 2007). Currently, twenty-five universities and at least three professional institutes offer English as a second language teacher education across the country (Chile Estudia, 2023). The requirements to enter these institutions vary, but commonly ask for the results of the PAES Chilean test to enter universities (PAES is a Spanish acronym for Higher Education Access Test, which assesses maths, Spanish, history and science), the average mark of secondary education, and the school ranking (DEMRE, 2023). English proficiency is not required, and the initial English level of the prospective EFL teachers is generally low (Barahona, 2016a). Teachers in Chile can start teaching directly after graduating from their initial teacher education – they do not have to meet any additional requirements, such as passing a competitive examination or a standardised test, as in France, Korea, Mexico, Spain and Turkey (OECD, 2014a).

These programs last between 4 and 5 years (Chile Estudia, 2023) and place a special focus on upgrading the English language proficiency of pre-service teachers (Barahona, 2016a; Barahona & Benitez, 2020). These ELT educational programs have established that graduate teachers should have an advanced English proficiency level equivalent to a C1 from the Common European Framework of Reference (CEFR, Barahona & Benitez, 2020). The curriculum typically includes linguistic disciplines (e.g. grammar, phonetics, linguistics and semantics), disciplines concerning English-speaking countries' cultures (e.g. literature and history), educational and pedagogical models (e.g. educational theories and psychological and sociological foundations), teaching practice and finally a research project (Barahona, 2016a).

School-university partnerships in second-language teacher education were introduced as mandatory in teaching programs at the end of the 1980s, succeeding educational reforms in developed countries (Tsui et al., 2009). This implementation has brought challenges for teaching English in Chile, being the most important the contradiction between language teaching conceptualisations and the classroom reality (Barahona, 2015a). Even though pre-service teachers study for around five years to become EFL teachers, they may not feel prepared to teach English in the Chilean educational context.

2.9.5 ELT Policy in Chile

Regardless of the type of institution (public or private), Chilean schools have to deliver the national curriculum. Until 1995 English was an optional subject in the secondary education curriculum in the public system (including municipal and voucher schools) (Barahona, 2016b). English became compulsory as an initiative led by democratic governments (Barahona, 2015b). According to British Council (2015) and Curriculum Nacional (n.d.), English has been a compulsory subject in the Chilean educational system from 5th to 12th grade since 1998. English

at the primary level has been gradually included (Barahona, 2016b). The national curriculum establishes that during these eight years, students have three pedagogical hours per week (1 pedagogical hour is equivalent to 45 minutes), which makes a total of 144 pedagogical hours per year (Curriculum Nacional, n.d.).

The English curriculum used to have a different focus. Receptive skills were a priority over productive skills, as 40% should be committed to reading comprehension, 40% to listening comprehension and 20% to writing and speaking (Ministerio de Educación, 2009). That approach considered that Chileans needed to access information and knowledge in English (Barahona, 2016b). In 2009 policy adjustments were made to the ELT framework. For the first time, school teachers' perspectives were considered (Barahona, 2016b). It was admitted that Chilean citizens needed to develop their productive skills as much as their receptive skills to be proficient in the global market; therefore, new objectives included the expectation of equal development of the four skills (i.e. reading, listening, speaking and writing) (Barahona, 2016b).

The aim was that 8th-grade students could achieve an A2 level and 12th-grade students would achieve a B1 level (Barahona, 2016b). By then, teachers were supposed to achieve a B2 level from the CEFR (Barahona, 2016b); however, nowadays, institutions that offer training to pre-service EFL teachers have set as a priority that teachers reach a C1 English level proficiency (Barahona, 2016a; Barahona & Benitez, 2020). Also, the role of Spanish (Chileans' mother tongue) changed as it could no longer be used as a means of communication but as a resource. English should be used as much as possible, which is aligned with the communicative language teaching approach (Barahona, 2016b). The most recent measures encourage teachers to use only English in the lessons (Ministerio de Educación, n.d.).

According to the most updated information on Curriculum Nacional's (n.d.) webpage for 2023, the Chilean's curriculum aim is that Chilean students progress in the skills to communicate in English through the development of linguistic skills of comprehension and production of both oral and written texts. Curriculum Nacional (n.d.) also emphasises that learning another language not only contributes to the linguistic and cognitive development of young people but also to understand and analyse the worldviews that other cultures bring, access new knowledge through the use of technology or the media and become aware of the world and their own reality.

2.9.6 Chileans' Level of English

Chileans' level of English is not clear; however, it is perceived as low. The 2012 census shows that 16% of Chileans could speak English. According to Education First (EF) English Proficiency Index (2022), the world's largest ranking of countries by English skills, Chile was classified at a very low proficiency level from 2011 to 2013, at a low proficiency level between 2014 and 2018, and at a moderate proficiency level between 2019 and 2022. In the most recent measure (i.e. 2022), Chile is located 45 out of 111 nations and number 6 out of 20 in Latin America (EF English Proficiency Index, 2022). This position is somewhat good compared to other Latin American countries but still not so positive at the global level.

The Ministry of Education offers the possibility of certifying EFL teachers' English level through a voluntary proficiency test. Only 28% of teachers have been certified. According to the database of the Ministry of Education, 27% of teachers have been certified with a B2 level, and only 19% of teachers are classified in the highest required grade (C1), required since 2014 by the Ministry (Lizasoain, 2021).

A reliable source that measures students' level of English is the result of the tests the Chilean Government has conducted (SIMCE). This evaluation was designed to determine the

number of Chilean students prepared to use English as a second language in an autonomous manner as well as to measure the percentage of 11th-grade students able to reach the levels A1, A2 and B1 in the CEFR. This test has not been excluded from criticisms. While the national curriculum promotes the development of the four skills, the standardised test to measure students' English level (SIMCE) only measures receptive skills (Barahona, 2016b).

The English level of Chilean students is tested in 11th grade and has been evaluated on three occasions: 2010, 2012 and 2014. In the first test, 11% of students passed the exam (Ministerio de Educación, 2010). In 2012, 8.2% got a B1, 9.6% got an A2, 26.8% got an A1, and 55.4% got a level below A1 (Agencia de Calidad de la Educación, 2012). The 2014 results are slightly better (12.6% obtained a B1, 12% an A2, and 22.3% an A1); however, once again, most students (53.2%) got a level below A1 (Agencia de Calidad de la Educación, 2015).

The results of these standardised examinations demonstrate that most students do not have a basic level of English. Moreover, in all these evaluations, it is possible to see the dramatic and enormous difference in scores obtained from students from different socioeconomic backgrounds. For example, in the 2014 results, only 1.5% of the students who come from the lowest income families got a B1 level, in contrast with 83.3% of the students who belong to the wealthiest families who obtained the same level (Agencia de Calidad de la Educación, 2015).

Agencia de Calidad de la Educación (2018) released the conclusions of a National English Study carried out in 2017, which was conducted on a sample basis of 11th-grade students. Once again, the results were low, and students from the lowest socioeconomic group got the lowest scores. Only three out of ten 11th-grade students achieved the expected basic learning for 8th grade. The English test minimum score was 0, and the maximum score was 100. The average score was 51 points, while the percentage of students who reached the basic and

intermediate levels was 32%. The results by the socioeconomic groups show that, in the high group, 85% of the students reached the basic and intermediate levels while, in the low group, 9%. In this study, they mention that the number of hours of English per week, the amount of time teachers speak in English in the class, and the English level of teachers are some factors that influence these results.

2.9.7 Factors That Can Contribute to the Chileans' English Level

Chileans' low level of English is a problem to which many diverse factors may contribute. One interpretation to explain the low results is that the current methodologies to teach English are not effective, or another hypothesis is that EFL teachers in Chile have unsuccessfully adapted them to the context in Chile (Philominraj et al., 2021). Some researchers (e.g. Philominraj et al., 2021) claim that educational institutions should design a curriculum more appealing to the Chilean context.

Also, large-size classes—public schools usually have more than 30 students and up to 45 per class—are a factor that challenges the implementation of the ELT policy (Barahona, 2016b). Large classes steam some issues for students, as they have less time to interact and communicate in English and for teachers due to not having enough time to monitor and provide feedback (Barahona, 2016b). Therefore, this directly affects the development of communicative skills.

English is compulsory in Chile from 5th grade; also, it is optional to teach English from kindergarten (Arellano & Hatoss, 2023). However, more hours of English did not translate into better results. Other issues, such as "the shortage of EFL teachers, the low prestige of the teaching profession as well as the high workloads, large classes, poor infrastructure, and little investment, have led to poor results" (Arellano & Hatoss, 2023, p.193).

2.9.8 Measures Taken by the Government to Improve English Language Education

Programa Inglés Abre Puertas (PIAP is a Spanish acronym for English Opens Doors Program, EODP) was created in 2003 to improve the students' English level through the definition of national standards for learning English and a professional teacher development strategy. The EODP aims to guarantee that Chileans develop English fluency and become bilingual (British Council Chile, 2015).

The English Opens Doors Program is the only program led by the Chilean government that supports a school subject (Barahona, 2016b). It started working in 2004 to improve the teaching and learning of English as a foreign language across the public system. The teacher development strategy developed by the EODP includes activities to train pre-service and in-service EFL teachers. According to the information available on Ministerio de Educación's (n.d.) website, for 2023, there are many activities for EFL teachers. Pre-service teachers' activities are related to curriculum and assessment (e.g. diagnosis of language proficiency) and scholarships to study one semester in an English-speaking country. In-service teachers can participate in continuous development programs (e.g. English language certifications, international internships, training to teach English in vocational and technical institutions, support for teachers' networks, seminars and workshops delivered by international experts, courses on methodologies, winter retreats and English summer camps, and diplomas to teach young learners).

Programa Inglés Abre Puertas (2017) explains that apart from the support given to the teachers, the EODP develops complementary pedagogical activities during the academic year to contribute to the learning of vocabulary and development of oral and written expression in the students. Students from state-funded schools can participate in some activities. Primary students (5th and 6th graders) are encouraged to participate in spelling bee competitions. Students in 7th

and 8th grades can participate in public speaking competitions. Secondary students (from 9th to 12th grade) can participate in debates and summer and winter camps for a week. Programa Inglés Abre Puertas (2017) also suggest using the computer labs of schools so that students can have access to the internet to support the learning of English through the use of technology. They provide some digital resources and links to educational websites. They also propose to have extra programmatic activities such as English Day or English Week and English winter and summer camps. School teachers view this program's initiatives as positive; however, the activities for students are limited (Glas, 2013) and critique that there is a distance between policies and implementation as well as over-standardisation (Barahona, 2015b; Glas, 2008).

Programa Inglés Abre Puertas (2017) states that the government's objective is that students can get to have a B1 level by the end of secondary school. According to the Association of Language Testers in Europe (ALTE) a student must have between 350 and 400 hours of Formal English study to get a B1 level. This information suggests that the National Curriculum should allow students to reach the B1 level before leaving their secondary education since the hours of study proposed by the Study Plans of the Ministry of Education exceed what is indicated here. However, the information collected in classroom observations during 2015 and 2016 by EODP collaborators noticed a decrease in the hours of exposure to the language and its effective instruction. Sometimes there were interruptions during the English classes, and other times teachers did not use English to communicate with their students. During the observations of the classes of English, it was revealed that only 50% of the time was used for listening and speaking in the target language, which limits the possibility of students having the exposure time required to achieve English levels indicated in the National Curriculum.

To improve these results, the Ministry of Education launched the National English Plan 'English in English', which seeks to improve the quality of teaching this language in all classrooms. However, in 2020, the number of hours of English diminished for 11th and 12th-grade students, who have 2 hours per week instead of 3, to allow students to enhance their own interests (Ministerio de Educación, 2019).

It has not been easy for EFL teachers to implement the English in English policy. Globally, a crucial stimulus for learners' development of a foreign language is that teachers use the target language (Brevik & Rindal, 2020). Nonetheless, it has been noticed that in Latin American contexts, teachers do not use the target language (Cancino & Díaz, 2020). Some reasons to use the mother tongue (and not English) include lack of English proficiency, lack of pedagogical knowledge—or lack of confidence in this pedagogical knowledge—to teach English in English (Freeman et al., 2015).

Although the English national curriculum and the only English policy imposed using only English to teach English, the use of the mother tongue and codeswitching between L1 and the target language is common practice in Chile (Cancino & Díaz, 2020; Donoso, 2020). Some studies (Bustos-Moraga, 2018; Rabbidge, 2019) claim that using the mother tongue can benefit learning. For example, L1 can be used in challenging classroom situations, such as introducing or confirming the comprehension of abstract vocabulary in a shorter period of time (Bustos-Moraga, 2018; De la Campa & Nassaji, 2009; Littlewood & Yu, 2011; Viáfara, 2011). Also, L1 can be used to explain complex structures, create a positive classroom environment and establish rapport (Mwinda & Van der Walt, 2015; Rabbidge, 2019). Students' use of the mother tongue may be related to greater gains in L2 vocabulary (Sato & Angulo, 2020). Even though using L1 to facilitate comprehension has been recommended, it is advantageous that teachers use the

target language extensively (Barahona et al., 2021). Some investigations have shown that professional development is likely to enhance in-service teachers' English proficiency and their ability to use English more efficiently in various learning contexts (Freeman et al., 2016). This suggests that the English-in-English policy should be accompanied by related training. Teachers also need to learn strategies to make this approach beneficial for students' L2 learning. (Barahona et al., 2021).

2.9.9 Conclusion

The Chilean government sees English as a language to strengthen the Chilean economy. Consequently, policy reforms and the creation of EODP have been developed to become a bilingual country. Despite these efforts, this road has not been easy, as the results of the English tests conducted in the country show poor performance and slow and little progress.

Chilean ELT policy needs to apply some reforms. English was primarily introduced into the Chilean education system for economic purposes rather than to improve education and promote social equity (Barahona, 2016b). This approach seemingly resulted in a rush to develop an ELT policy without effective implementation. For instance, challenges pertaining to the classroom environment are often overlooked, leading to a tendency to attribute poor results solely to teachers, without taking into account the disparity between policy expectations and the practical realities of challenging, complex, and resource-deficient learning environments (Barahona, 2016b).

In Chile, the English teacher conceives the foreign language in two terms. On the one hand, it is a communication tool that allows access to more and better academic and job opportunities (Lizasoain, 2021). And on the other, it is a cultural and symbolic capital that opens the doors to other worlds that could not be known without the management of the English

language (Lizasoain, 2021). This type of subjectivity has an impact on the classroom because it predisposes participants to have certain attitudes towards knowledge (Lizasoain, 2021). Along the same lines, Glas (2008) highlights the need for greater awareness of the educational advantages of learning this language beyond the possibility of finding a good job in the future. This includes a discussion of the level to be achieved and the contents of the classes. For this to be possible, more people involved (e.g. teachers, language learners, academics, foreign volunteers, parents and young people) should have access to the debate (Glas, 2008). Improving Chileans' proficiency levels can be achieved by generating changes that facilitate the work in the classroom (Lizasoain, 2021). This implies moving away from the neoliberal market model that prevails in Chilean education and approaching a practice that fits the current needs of school and citizen communities (Lizasoain, 2021).

Changes are necessary to modify this reality and improve Chileans' English. As previously explained, considering the Chilean learners' needs, including content, interests and English level, is crucial. Also, EFL teachers should show the students the variety of advantages of learning English so that they have more possibilities to engage with the language and set related language learning goals. Previous research (e.g. Gouëdard, 2021b; Lou & Noels, 2016) has shown that mindsets and motivation are closely related. Therefore, it is imperative to know the language learning mindsets of the students to change incorrect language learning beliefs and promote growth language mindsets to facilitate the motivation of Chilean learners to fulfil their English language dreams. Previous studies (e.g. Blackwell et al., 2007; Yeager et al., 2019) conducted in other parts of the world, such as the USA, have shown positive results of growth mindsets on motivation and learning. However, there are no such studies in the Chilean context. For that reason, this research intends to develop students' growth language learning mindsets, providing strategies for teachers and lessons for students to help to change misbeliefs about

learning a new language which might positively impact their learning.

2.10 Conclusion and RQs

This chapter has shown how language mindsets can profoundly affect learners' motivation and achievement. In general, investigations show that mindsets and motivation are related (e.g. Gouëdard, 2021b; Lou & Noels, 2016, 2017) and that when mindsets are manipulated, students increase their motivation (e.g. Blackwell et al., 2007; Yeager et al., 2016). However, none of these investigations has been conducted in the Chilean context. Research on mindset and academic achievement differ in their outcomes. Some studies have found that these variables are related (e.g. Claro & Loeb, 2019; Gouëdard, 2021a), and others have not (e.g. Li & Bates, 2019; 2020; Lou et al., 2021). Similarly, interventions to promote growth mindsets sometimes help enhance academic achievement (e.g. Yeager et al., 2016, 2019), and some do not (e.g. Donohoe et al., 2012). Two investigations in the Chilean context (i.e. Claro et al., 2016, 2021) found that mindsets and achievement are related; however, there is no investigation into the relationship between language mindsets and English academic achievement. Teachers are essential to help develop growth mindsets (Dweck, 2017; Lou & Noels, 2016, 2019). Nonetheless, no known study has researched the relationship between teachers' and students' language mindsets in the Chilean context.

The English level of Chilean students has remained low for several years (see section 2.9.1). Moreover, studies have shown the dramatic difference between students of different socioeconomic backgrounds. The students from the lowest-income families have the lowest English level (Agencia de Calidad de la Educación, 2015, 2018). Besides, students from these families have more fixed-oriented mindsets than high-status students (Claro et al., 2016). Also, fewer growth mindset teachers work in low socioeconomic status schools compared to high

socioeconomic status schools (Claro et al., 2021). Some studies suggest that growth mindsets positively impact academically disadvantaged students (e.g. Sisk et al., 2018). Therefore, developing growth language mindsets might help to improve Chilean students' L2 motivation and learning and diminish inequality.

This research will be conducted with Chilean pupils who study in public and semi-private schools, who are the ones who usually come from low socioeconomic and middle-class backgrounds and have poor English performance. Considering the scarce research on mindsets in the language learning field and in the Chilean context and the possible benefits that growth language mindsets can offer to students who face academic disadvantages, the following research questions will be investigated:

- RQ 1: Is there a relationship between students' language mindset and L2 motivation?
- RQ 2: Is there a relationship between students' language mindset and English academic achievement?
- RQ 3: Is there a relationship between students' and teachers' language mindsets?
- RQ 4a: Can sessions to promote growth language mindsets impact upon students' mindsets?
- RQ 4b: Can sessions to promote growth language mindsets impact on students' L2 motivation?
- RQ 5: Can growth mindset oriented online lessons impact students' academic achievement?

Chapter 3: Methodology

3.1 Introduction

This chapter describes the methodology used in the present study and the theoretical background that justifies my decisions to choose participants, proper materials and procedures. I have to admit that I planned the methodology of this research differently at the beginning; nonetheless, the COVID-19 contingency made me restructure my plans. Despite that, I kept my initial research questions and the essence of what I wanted to investigate. I will start by explaining the main changes of this methodology, and then I will describe the participants and ethical approval process. Next, I will provide information about the varied materials, evaluation instruments and the pilot study. Later, I will concentrate on the procedures which involve data collection and analyses to answer the research questions. Finally, I will discuss the quality of this research, including quantitative and qualitative aspects.

3.2 Change of Methodology: COVID-19 Contingency

At the beginning of 2020, Chinese authorities declared having identified a new coronavirus that caused many cases of pneumonia in Wuhan City. Since that moment, the World Health Organization (WHO) and its partners, Chinese authorities and global experts have been working on learning more about the virus, ways to control its transmission and have provided guidance to be followed internationally (WHO, 2020a). Countries worldwide started implementing public health and social measures, including closures of schools, to keep a low transmission level (WHO, 2020b).

The year 2020 was challenging because COVID-19 changed the world in many aspects; consequently, the methods of this research had to be adapted to suit that situation as, initially, the current study was going to take place in Chilean schools. In Chile, the school year started at the

beginning of March 2020, but educational institutions were closed on March 15 to diminish the spread of the virus. As it was uncertain when schools would be open again, the methodology changed so students could do the online sessions from their houses between April and September 2020. As most students from public schools did not have access to the internet and computers in their homes, semi-private and private schools were also invited to participate. However, this methodology change entailed some complications in getting participants, which will be detailed later in section 3.8.1. The following table summarises the main changes to the data collection plan:

Table 1. **Main Changes to the Original Data Collection Plan**

	Original Plan	**Final Plan**
Type of school	Public (8 schools)	Public / Semi-private (8 schools)
Participants	10^{th} Grade (15 years old) Around 300 students.	9^{th}/ 10^{th}/ 11^{th}/ 12^{th} Grade (Between 14 and 18 years old) I got 86 participants.
Questionnaires	Responded at school	Responded at home
Twelve online sessions	At school between April and November 2020. Sessions would be part of the class activities with teachers' supervision.	At home between April and July 2020. Sessions were developed voluntarily by the students.
Academic Achievement	I would use students' English Grade Point Average (GPA) before and after this study (English GPA 2019 and 2020) to check: 1. The relationship between students' academic achievement and their language mindsets. 2. To test the effectiveness of the online sessions in terms of academic achievement.	In 2020 students did not attend school, and schools evaluated students in different ways. Therefore, I decided not to use their English GPA for the year 2020. Instead: 1. I used English GPA 2019 to see the relationship between students' academic achievement and language mindsets. 2. I used pre-and post-English tests to test the effectiveness of 24 English online lessons created using strategies to promote growth mindsets.

3.3 Research Design

This study used a pre-experimental design, specifically a one-group pre-test and post-test design. Pre-experimental designs are used in situations in which it is hard to use the classical experimental design, which includes a control group and a random assignment (Neuman, 2014). This design was chosen because the COVID-19 pandemic did not allow the recruitment of a more significant number of participants, and it was uncertain how many would remain for the total study amount of time (i.e. five months). Thus, students were not divided into manipulation and control groups. One-group pretest-posttest designs have one group, a pre-test measure, a treatment, and a post-test measure (Creswell, 2014; Neuman, 2014). Therefore, this design allowed the possibility to evaluate the effectiveness of sessions to develop growth mindsets on mindsets and L2 motivation and English lessons with a growth mindset orientation on academic achievement by using pre-and post-tests with the same participants.

Quantitative methods were used to answer research questions (1, 2 and 3) that tested the relationship between mindset and achievement, mindset and motivation, and teachers' and students' mindsets. The quantitative instruments included pre-validated questionnaires to assess language mindset and motivation and English tests to evaluate changes in academic achievement.

Nonetheless, A one-group pre-, post- and delayed post-test design with a mixed methodology approach—which involves integrating quantitative and qualitative research components—was chosen to test the effectiveness of sessions to promote growth mindsets and increase L2 motivation (RQs 4a and 4b). Some studies (e.g. Ryan & Mercer, 2012) recommended using qualitative instruments to get in-depth insights. Thus, a qualitative data collection instrument (diary entry questions) was added to the quantitative tools (questionnaires

to assess language mindsets and L2 motivation) to get more detailed and profound in-depth data about students' beliefs and motivations. A mixed methodology allows the collection of diverse data types, which allows a more complete understanding of the RQs than quantitative and qualitative data alone (Creswell, 2014). In this case, RQs 4a and 4b might benefit better from mixed-method research. For example, the quantitative approach helps to test the theory (Creswell, 2014), which is the aim of these RQs. While the qualitative approach is helpful when there is not much research on the topic, and therefore it needs to be explored (Creswell, 2014), which is the case of language learning mindsets. In addition to these benefits, quantitative and qualitative research allows for triangulating the data and validating the study (Dörnyei, 2007).

Likewise, a mixed methodology was used to answer the last RQ and see if English lessons with a growth mindset orientation could impact English academic achievement. According to Creswell et al. (2018), selecting a mixed methods approach is a viable option to overcome the limitations of solely quantitative or qualitative research methods. This can be achieved by supplementing quantitative results with qualitative data collection and analysis, which provides a more comprehensive and in-depth understanding of the research topic. Also, by analysing qualitative data gathered during English lessons taught with a growth mindset approach, in conjunction with quantitative data collected before and after the sessions, it becomes possible to assess both the processes and outcomes of the teaching intervention.

Some of the purposes of mixed methods research are triangulation and complementarity [2](Greene et al., 1989). Therefore, the qualitative data will be used to corroborate the quantitative results and determine if both outcomes are consistent. Also, clarifying the quantitative results

[2] Elaboration or clarification of the results from one method with the findings from the other method.

(given the limitation of not having a control group) will be helpful by identifying whether the strategies to develop growth mindsets influence academic achievement. Specifically, the qualitative data will help to provide a more detailed understanding of how the English lessons with a growth mindset orientation were perceived and experienced by the participants in terms of English development.

3.4 Participants

My original plan contemplated having around three hundred students and eight teachers as participants; however, as explained previously, the COVID-19 situation hindered this possibility. Hence, eighty-six students and fourteen teachers participated in this research. Students were from eight schools located in four regions of Chile: Santiago (one public school and one semi-private school), Valparaíso (three public schools and one semi-private school), La Serena (one semi-private school) and Rancagua (one public school). These eighty-six students answered questionnaire 1 and contributed to answer RQs 1, 2 and 3. Forty-nine students (out of the eighty-six) answered questionnaire 2 and the twelve online sessions in MoodleX, including diary entries' questions, and therefore helped to answer RQs 4a and 4b. Thirty-eight participants answered questionnaire 3 to test the prolonged effect of the sessions, which is also part of RQs 4a and 4b. According to Dörnyei (2003, 2007), from a statistical point of view, a study sample should include a minimum of 30 participants. Therefore the participants in this study are considered a good number to address the RQs.

Finally, seven students took the pre-and post-English test and attended 24 English lessons, allowing me to answer RQ 5. Changes in academic achievement were intended to be explained solely using quantitative methods, as in previous investigations (e.g. Dweck, 2017; Yeager et al., 2016, 2019). However, due to the restrictions and challenges arising from the

COVID-19 emergency, it was not possible to recruit and sustain a large number of participants. As a result, the study design was changed from an experiment to a one-group pre-test and post-test design. Although a small group completed all the activities, the work that was done was intense, including answering pre- and post-English tests to assess the four skills and attending 24 English lessons. Therefore, qualitative data will also be analysed to demonstrate whether the English lesson with a growth mindset orientation helped to improve the participants' academic achievement.

Seven students may seem like a small number of participants in quantitative research, making it difficult to generalise the results. However, in qualitative inquiry, there are no strict rules for sample size. While the number of participants may not be sufficient to generalise these findings, the data will still be presented, given that this study is the first of its kind. Therefore, presenting results from a small number of participants may still be valuable, as it can provide initial insights into the potential effects of growth language mindsets on English academic achievement. The following tables include more detailed information about the participants.

Table 2. Participants Who Responded to Student Questionnaire 1

Gender	Age	Type of school	Grade	Self-rated English level
Female	(14 Y)	Public	9th G	A1
50	5	42	3	20
Male	(15 Y)	Semi-Private	10th G	A2
36	35	44	40	25
	(16 Y)		11th G	B1
	26		32	25
	(17 Y)		12th G	B2
	18		11	13
	(18 Y)			C1
	2			3

Table 3. Participants Who Responded to Student Questionnaire 2

Gender	Age	Type of school	Grade	Self-rated English level
Female	(14 Y)	Public	9th G	A1
31	4	25	2	12
Male	(15 Y)	Semi-Private	10th G	A2
18	18	24	20	12
	(16 Y)		11th G	B1
	14		17	15
	(17 Y)		12th G	B2
	11		10	7
	(18 Y)			C1
	2			3

Table 4. Participants Who Responded to Student Questionnaire 3

Gender	Age	Type of school	Grade	Self-rated English level
Female	(14 Y)	Public	9th G	A1
24	2	21	1	8
Male	(15 Y)	Semi-Private	10th G	A2
14	16	17	17	8
	(16 Y)		11th G	B1
	11		12	13
	(17 Y)		12th G	B2
	8		8	6
	(18 Y)			C1
	1			3

Table 5. Participants Who Participated in English Lessons and English Tests

Gender	Age	Type of school	Grade	Actual English level
Female	(14 Y)	Public	9th G	A1
4	1	3	1	3
Male	(15 Y)	Semi-Private	10th G	A2
3	1	4	1	4
	(16 Y)		11th G	
	3		3	
	(17 Y)		12th G	
	2		2	

Table 6. Teacher Participants

Gender	Age	Experience	Self-rated English level	Type of school	Type of work
Female	(21-30)	(1-10)	A2	Public	Full-time
11	3	10	1	9	13
Male	(31-40)	(11-20)	B2	Semi-Private	Part-time
3	8	2	3	5	1
	(41-50)	(21-30)	C1		
	2	2	6		
	(51-60)		I do not know		
	1		4		

3.5 Ethical Approval

The ethical approval was developed considering the University of Essex guidelines, consistent with the 1998 Data Protection Act. It was explained that this study aimed to investigate whether online sessions and lessons to develop growth language learning mindsets could impact on students' mindsets, English academic achievement and motivation towards English language learning. As this study mainly focused on Chilean secondary students between

14 and 18 years old, all the materials, including questionnaires and online sessions, were revised and approved by my supervisor and the Ethics Committee.

The Participant Information Sheet (PIS) and Consent Forms were read and signed before the participants took part in the research. Teachers' PIS and consent forms were included in the first part of the online questionnaire (see Teachers' PIS and consent form in Appendix A). In the case of secondary-school students, their parents or guardians were asked to read, agree and sign the consent form before students answered the questionnaires and joined the online sessions, tests, and English lessons (see Parents' PIS and consent form in Appendix B).

3.6 Materials

The present study used different instruments to examine the relationship between students' language mindsets and motivation, students' and teachers' mindsets, and students' mindsets and academic achievement, and also to test the effectiveness of online sessions and lessons in promoting growth language mindsets. Questionnaires, participants' English GPA 2019, pre-and post-English tests, and diary entry questions were used as evaluation instruments. Also, I created twelve online sessions and twenty-four lesson plans to encourage growth language learning mindsets following experts' prevalent and recent recommendations. For example, considering the importance of challenges and perseverance (e.g. Lou & Noels, 2019), goal setting and a plan to achieve them (e.g. Dweck, 1999; Lou & Noels, 2019), making mistakes (Dweck, 2008), brain malleability (e.g. Dweck, 2008; Lou & Noels, 2016), strategies to improve language learning abilities (Mercer & Ryan, 2010), discussion of language learning beliefs (Mercer & Ryan, 2010), providing feedback (Dweck, 2008; Lou & Noels, 2019), praising the effort (e.g. Dweck, 2017; Zarrinabadi et al., 2021) and not labelling students (Dweck, 2017).

Table 7 specifies the materials and instruments used to answer each research question. In the following paragraphs, a description of each of these tools is offered.

Table 7. Materials and Instruments Used to Answer Each RQ

Research Question	Materials and Instruments of evaluation
RQ 1: Is there a relationship between students' language mindset and L2 motivation?	▪ Student questionnaire 1
RQ 2: Is there a relationship between students' language mindset and English academic achievement?	▪ Student questionnaire 1 ▪ English GPA 2019
RQ 3: Is there a relationship between students' language mindsets and their teachers' language mindsets?	▪ Student questionnaire 1 ▪ Teacher questionnaire
RQ 4a: Can sessions to promote growth language mindsets impact upon students' mindsets?	▪ 12 online sessions on MoodleX ▪ Student questionnaires (1, 2 and 3) ▪ Diary entry questions
RQ 4b: Can sessions to promote growth language mindsets impact on students' L2 motivation?	▪ 12 online sessions on MoodleX ▪ Student questionnaires (1, 2 and 3) ▪ Diary entry questions
RQ5: Can growth-mindset oriented online lessons impact students' academic achievement?	▪ 24 online English lessons ▪ English pre-test ▪ English post-test

3.6.1 Questionnaires

An online questionnaire was used to investigate students' language mindsets and motivation towards English language learning. Also, this instrument was used to measure teachers' language mindsets. Questionnaires are one of the most common data collection methods for SLA research (Dörnyei, 2003, 2007; Wagner, 2010). Besides, questionnaires have been used to measure people's mindsets in areas other than SLA (e.g. Aronson et al., 2002; Blackwell et al., 2007; Claro et al., 2016; Dweck, 2007; Good et al., 2003; Paunesku et al., 2015; Yeager et al., 2014, 2016); to measure language learning mindsets (e.g. Lou & Noels 2016; Lou et al., 2017); and to measure motivation through the L2MSS (e.g. Papi, 2010; Papi & Teimouri, 2012; Ryan, 2009; Taguchi et al., 2009).

Online questionnaires have several benefits, for example, the low costs involved; they can be posted on websites or e-mailed to the participants so they can answer the questionnaires when convenient. Finally, the data is entered and stored automatically in the web-based survey (Wagner, 2010). Apart from those advantages, the questionnaire was posted online because the COVID-19 situation kept students at home, so this was the only way in which they could answer them. I uploaded the student questionnaires onto the MoodleX application and Google Forms. The original idea was to use MoodleX for the questionnaires and online sessions; however, as students worked from home using different types of devices, I had to create the questionnaires in Google Forms because the questionnaires in MoodleX looked messy on mobile phones.

3.6.1.1 Construction of the Online Questionnaires

The student questionnaires included questions about participants' language mindsets and motivation towards English language learning. Therefore, two questionnaires were used: the Language Mindset Inventory (LMI, Lou & Noels, 2015) and the L2 Motivational Self System (L2MSS, Dörnyei, 2005) questionnaire. The teacher questionnaire only intended to investigate teachers' language mindsets; thus, only the LMI was used. The questionnaires were carefully constructed following Dörnyei's recommendations (2003, 2007) regarding length, format and anonymity. The student questionnaire, including the LMI and L2MSS, consisted of four pages, and the estimated time to complete it was between 15 and 20 minutes. The teacher questionnaire was shorter as it was made up of two pages and did not take longer than 10 minutes to answer. The designs were simple; they included a title, general and specific instructions, questionnaire items and a thank you note. It was explained that the questionnaires did not have correct or incorrect answers and that were anonymous so that the participants could give honest answers. Due to these questionnaires being answered online, the PIS and consent forms were included at

the beginning of the questionnaire for teachers, and students' parents gave their consent before students answered the questionnaire (see Teacher questionnaire in Appendix C and Student questionnaire in Appendix D).

3.6.1.2 Language Mindset Questionnaire

The language learning mindset questionnaire was borrowed from the LMI created by Lou and Noels and first published in 2015. The LMI was constructed considering Dweck's (1999) research on maths intelligence and ability and Mercer and Ryan's (2010) and Ryan and Mercer's (2012) qualitative investigations on language learner beliefs (Noels & Lou, 2015). The LMI evaluates three areas: general language beliefs (GLB: e.g. "To be honest, you can't really change your language intelligence"), second language learning beliefs (L2B: e.g. "It is difficult to change how good you are at foreign languages"), and beliefs about age sensitivity of language learning (ASB: e.g. "How well a person speaks a foreign language depends on how early in life he/she learned it") (Lou & Noels, 2016; Noels & Lou, 2015). Just a few modifications were made to the original LMI. In order to give participants the possibility of choosing a neutral option in case they did not know what to answer, the option "neither agree nor disagree" was added to the Likert scale. According to Cohen et al. (2018), 5- and 7-point Likert scales, including a mid-point, are more appropriate to avoid forcing people without an opinion to express ideas that do not represent what they think, know or believe. Therefore, these questionnaires included a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

3.6.1.3 L2MSS Questionnaire

The factors influencing learners' source of motivation and success in learning will vary based on different linguistic contextual elements (Tuan, 2012). In this study, the L2MSS has

been chosen to investigate the L2 motivation of Chilean students as it seems more appealing to this context than previous theories.

For instance, the integrativeness concept of Gardner's theory would not be very applicable in the Chilean context since English is a foreign language, and there is practically no English-speaking community. English is primarily taught as a mandatory subject with utilitarian objectives, such as academic and professional aspirations. Furthermore, with the rise of globalisation and English's position as a global language, the relevance of the integrativeness concept has become more complicated. Dörnyei et al. (2006) argue that it is essential to cultivate a bilingual identity that is not restricted to a particular L2 community. Therefore, it is no longer possible to assert that there is a particular culture that learners can strive to integrate into. Dörnyei (2009b) notes that it is crucial to consider this changing global reality while theorising the motivation to learn a new language and motivation to learn Global English. Dörnyei's L2MSS has effectively redefined Gardner's concepts to make them relevant to English learning contexts worldwide (Lamb, 2012). According to Dörnyei (2009b), the L2MSS is a more appropriate approach to explaining L2 motivation since it emphasises the temporal aspect of motivation (both future and present), mental imagery, identity, and the L2 self. For all these reasons, the L2MSS is appropriate for the context in Chile, where English is promoted as a global lingua franca (more detailed information in section 2.9).

Also, the SDT developed by Deci and Ryan in 2002, which considers both internal and external motivation, could be beneficial in examining the motivation levels of Chilean students. However, since one of the goals of this study is to assess the impact of growth mindset sessions, which form part of the learning context, on students' motivation levels, the L2MSS questionnaire is a more suitable tool to use. This is because the L2MSS includes items related to the L2

Learning Experience, which can provide a wider range of psycholinguistic factors that affect motivation and is more relevant in the Chilean context where English is learned in schools.

The L2MSS suggests that there are three primary sources of motivation to learn a foreign/second language: the learner's vision of themselves as an effective L2 speaker, social pressure from the learner's environment, and positive learning experiences (Hadfield & Dörnyei, 2013). These three sources will help reflect Chilean secondary students' motivation to learn English. By exploring their future aspirations, including their goals, obligations, and actual experiences of learning the language, it will be possible to identify their motivation.

I checked some L2MSS questionnaires that had been piloted before in different countries worldwide (Papi, 2010; Papi & Teimouri, 2012; Ryan, 2009; Taguchi et al., 2009). Taguchi et al.'s (2009) study included ten items per aspect. Ryan's (2009) study included six items for the Ideal L2 self and L2 learning experience (this study did not measure the ought-to L2 self). Papi's (2010) study and Papi and Teimouri's (2012) study included the same items (i.e. six items per construct). All the items in these studies were very similar, with only minor differences in the wording of the sentences. I decided to use six items for each component of the L2MSS to use the same number of items in the LMI Q, so in general, I picked most of the items from Papi's (2010) and Papi and Tamuri's (2012), which were also part of Taguchi et al.'s (2009) study and Ryan's (2009) study. From the last one, I especially selected the items related to L2 learning experience as they were statements rather than questions (see the references for each item in Appendix D).

The L2MSS questionnaire evaluates the ideal L2 self, the ought-to L2 self and L2 learning experience (also known as *Attitudes to learning English*[3]). The Ideal L2 self items

[3] Both terms (*L2 learning experience* and *Attitudes to learning English*) are used interchangeably in this study.

reflect learners' ideal image of the type of L2 users they aspire to be in the future (e.g. "Whenever I think of my future, I imagine myself being able to use English"). The ought-to L2 self items reflect learners' L2 attributes that they believe they must possess as a result of obligations or responsibilities (e.g. "I consider learning English important because the people I respect think that I should do it"). L2 learning experience items reflect English actual learning experiences (e.g. "I really enjoy learning English"). Just like the LMI questionnaire, this questionnaire was also rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

3.6.2 Diary Entry Questions

Diaries were incorporated into this study to complement the information gathered through the questionnaires and triangulate the data. As this investigation spanned some months, diaries were included to find out more about participants' thoughts during the process of learning about the significance of growth mindsets in language learning. Diaries are specifically convenient for recording data and analysing participants' thoughts and actions over time (Bell, 1998; Dörnyei, 2007). Also, diaries can contribute towards collecting personal data and analysing individuals' changes over time (Bolger et al., 2003; Dörnyei, 2007). Students answered the questionnaires before and after taking the twelve online sessions. In addition, they were asked to answer some diary entry questions every three sessions to collect data on what was happening while taking the sessions.

Bell (1998) and Bolger et al. (2003) highlight that diaries are advantageous for noticing changes and similarities across participants over time. For this reason, participants were asked to complete the entries consistently every two weeks, which allowed for checking, comparing and analysing their responses. Students were asked to respond after sessions 3, 6, 9 and 12 to four

questions provided that they could reflect on the contents of the three specific sessions they had just completed, their language mindsets and language learning motivation. Structured diaries allow to give directions to obtain detailed information and can provide an extensive amount of data (Bolger et al., 2003); that is why I decided to include specific guidelines and determine the areas on which I wanted participants to reflect. The questionnaires were administered using both languages (English and Spanish). Students were free to write their answers in English or Spanish so that the language did not impede expressing their thoughts and ideas adequately (see diary entry questions in Appendix E).

The online mode of these questions was suitable for an investigation that had to be conducted remotely and also permitted getting the answers instantly. Researchers started developing electronic diary data collections in the 1990s (Barrett & Barrett, 2001). As Bolger et al. (2003) mention, in electronic diary instruments, transcribing data is unnecessary, making them less time-consuming when preparing data for analysis.

One disadvantage of this tool is that it might require a substantial amount of participant effort and investment in the process of diary writing. Alaszewski (2006) explains that completing a diary requires participants' engagement for a more extended period than other methods, such as responding to questionnaires or a single interview. For this reason, it might be hard to recruit many participants for a diary study. Day and Thatcher (2009) considered another limitation: sometimes, participants do not complete the entries at the required time and do not provide enough detail.

Dörnyei (2007) gives some suggestions for facilitating diary studies. As mentioned above, diary studies are demanding for participants and sometimes participants do not complete

them. This problem can be solved by decreasing the required time to write in the diary. Also, Dörnyei recommends increasing participants' motivation to persist with the research by incorporating friendly and convenient procedures, reminding participants of the dates of expected responses, structuring diaries with specific questions, and using rewards to incentivise participation. These suggestions were incorporated into this research. I asked participants to write only four times in the diary entries, and I continually e-mailed them to remind them what to do and explained the importance of their responses and the rewards they could obtain by answering them, which were a laptop and two tablets (donated by the researcher).

3.6.3 English GPA 2019

Previous research investigating the relationship between mindsets and academic achievement used students' GPAs in core academic courses such as maths, language (English as a first language), science and social studies (e.g. Aronson et al., 2002; Chen & Pajares, 2010; Dupeyrat & Mariné, 2005; Gonida et al., 2006; Paunesku et al., 2015; Yeager et al. 2016, 2019). For this reason, this study used students' English GPAs to examine the relationship between language mindsets and English academic achievement. Participants answered the language mindset questionnaire in April 2020; therefore, I used students' English GPA 2019 (which included all the English marks for the 2019 academic year), as this was their most recent and official average mark.

3.6.4 Sessions to Develop Growth Language Learning Mindsets

Twelve online sessions to develop growth mindsets in language learning were created between December 2019 and January 2020. The sessions were designed based on essential and up-to-date research in this field (e.g. Dweck, 1996, 1999, 2008, 2010, 2015, 2017; Lou, 2014; Lou et al., 2017; Lou & Noels, 2016, 2017a, 2017b, 2019, 2020; Mercer & Ryan 2010; Mindset

Works, n.d.; Noels & Lou 2015; Oxford, 1990, 2011; Ryan & Mercer, 2011, 2012; Williams et al., 2015). I carefully selected videos and materials for the sessions. The videos I included did not always mention language learning, but I added some questions so the students could reflect on them. The session titles are the following:

- Session 1: Your brain is malleable!
- Session 2: Making mistakes
- Session 3: Don't be afraid of asking questions!
- Session 4: Love challenges
- Session 5: Failure
- Session 6: You can learn anything!
- Session 7: Language learning beliefs
- Session 8: Age-sensitivity beliefs
- Session 9: Beliefs on how to improve your skills and SMART goals
- Session 10: Strategies to develop reading and writing skills
- Session 11: Strategies to develop listening and speaking skills
- Session 12: Strategies to develop vocabulary and grammar

The sessions were created thinking of A1 English level as, according to Agencia de Calidad de la Educación (2015, 2019), most secondary-school students in Chile have a low level of proficiency in English. Taking into account the elementary level of English of the students and considering that they would be doing the sessions alone and without the assistance of their teachers, in March, I provided more support for the sessions, such as more definitions, examples and the transcripts of the videos in two versions: English and English/Spanish. All sessions explained vocabulary when necessary and included comprehension and reflection questions.

3.6.5 Online English Lessons

In the original plan, teachers would put into practice in their lessons strategies for developing growth language mindsets; however, as mentioned earlier, this was impossible. For this reason, online English lessons were made part of the new plan. These online lessons were offered to the same students already doing the twelve online sessions in MoodleX. I sent these students an e-mail explaining that I would be doing English lessons with their favourite chosen topics and grammar content. If they were interested in participating, they had to complete a questionnaire in Google Forms. After checking students' answers, I created 24 lessons running from Monday, July 13 to Friday, September 4. The classes took place on Mondays, Wednesdays and Fridays at 3:00 PM in Chile (8:00 PM in the UK), lasted between 60 and 90 minutes each, and were held via Zoom. I took students' preferences of topics, grammar content and vocabulary to create them. I also considered the students' English levels (A1 and A2 according to the pre-English test they took before attending the lessons). I included at least one growth language mindset strategy in each of them. All the material was uploaded to MoodleX, and the lessons were recorded in the Zoom application (see a lesson sample in Appendix G).

The strategies for promoting growth language mindsets were related to the class topic and activities. The materials to develop these strategies included PowerPoint presentations, videos and handouts. In the first lesson, students started by understanding the importance of having a growth mindset, the significance of challenges and setting goals. In the following classes, as we were working on the topic of "travelling", I explained that even though travelling is an excellent way to learn and practice a new language, it is possible to learn a new language in a classroom and the benefits of learning English at a school. Later, they learned about the importance of making mistakes and reacting positively to them, the power of the word "yet", setting challenges,

the importance of the brain's malleability and the effort to improve our performances. After that, we reviewed how to deal with problems and failure.

Also, in almost every lesson, we checked different strategies for improving their listening and reading comprehension skills, and their writing and speaking. Besides, reflection and evaluation of students' goals were incorporated. Moreover, students had to reflect on different domains related to language mindsets to get to know their more specific beliefs, clarify their doubts and provide them with new information in case incorrect language learning beliefs would prevent them from learning (e.g. they believed that people need to have a special ability or talent to improve their English).

Finally, I would like to mention that throughout all the lessons, I gave students constructive feedback and advice on what strategies they could use to enhance their performances and emphasised the importance of hard work and effort. All this was done by considering up-to-date research to promote growth language mindsets (see the general plan for the 24 lessons in Appendix H).

3.6.6 Pre- and Post- English Tests

These tests were also part of the new plan to evaluate the effectiveness of the English online lessons. In the online questionnaire, students self-rated their English level. Some declared to have a beginner level and others an intermediate level. I was uncertain whether they should take a Key English Test (KET) or a Preliminary English Test (PET). Programa Inglés Abre Puertas (2017) states that the Chilean government's objective is that students can have a B1 level by the end of secondary school. Therefore, I needed a test that measured the B1 level. According to Cambridge Assessment English (2020), KET is targeted at Level A2, and PET is targeted at

Level B1 in the CEFR. KET also provides reliable assessment at levels B1 and A1, while PET also provides trustworthy evaluation at levels B2 and A2. Considering the low results in previous English national examinations (Agencia de Calidad de la Educación, 2015, 2019), in which most students obtained a level below A1, I decided to use the KET as this examination can assess lower levels of English.

Two samples of KET were used as pre- and post-English Tests. I downloaded the samples from the official page of Cambridge Assessment English. To ensure students would be taking a test they had not taken before, I decided to use new sample tests from 2020. On the official page, only one new test was available for each type of exam, so I used the KET sample to work as the Pre-English Test, and the KET for schools sample as the Post-English Test. Both tests are targeted at the same CEFR level as A2 Key; the only difference is that KET for schools uses content aimed at school-age learners (Cambridge Assessment English, 2020). I put the tests with instructions on Google Forms and sent students the link so they could answer them at their convenience. The only difference with the original tests was an item of evaluation in the speaking part. The speaking assessment evaluates four aspects: global achievement, grammar and vocabulary, pronunciation and interactive communication. To simplify the administration of this test, students were asked to record themselves; hence, there was no place for interactive communication. For that reason, this aspect was eliminated from the rubric of evaluation and students' fluency was added in its replacement (see appendix I for samples of pre-English Tests and Appendix J for samples for post-English Tests).

3.7 Pilot Study

Dörnyei (2003, 2007) points out that piloting is vital to construct a suitable instrument. I piloted the student questionnaires and diary entry questions in this study. First, I translated the

student questionnaires from English into Spanish. The translation was done so that students' level of English did not impede them from correctly understanding and answering the questionnaire. According to Dörnyei and Csizér (2012), translating questionnaires is very frequent due to the widely accepted belief that data quality is enhanced if questionnaires are written in the participants' native language. This procedure was followed in some L2MSS studies, which translated the questionnaires into participants' first languages (e.g. Csizér & Kormos, 2009; Ryan, 2009). I did not translate the diary entry instructions and questions as they were part of the online sessions which were in English. I did not write them in Spanish to ensure students got as much practice with English as possible.

I asked ten secondary students from Chile to answer the instruments and asked them some questions to see if they could fully understand the tools. I asked them whether they had understood the instructions and statements; how hard or easy it was to understand them; if they found unknown words; and how long it took them to complete them. After analysing students' feedback, I realised that, in general, they could understand most of the statements, instructions and questions in the questionnaire. I only had to change some words that caused uncertainty to many of them to more common synonyms. For example, I changed the word "sustancialmente" (substantially) for "en gran medida" (to a large extent). However, to my surprise, most of them found it very hard or could not understand the diary entry instructions and questions as they were in English. Considering this, the diary entry's instructions and questions were included in both English and Spanish to avoid confusion so that students could comprehend them and respond to them. After making all the corrections, and as suggested by Dörnyei (2003, 2007), I piloted these instruments again. In this final piloting, no further issues were encountered; therefore, this was the final version of the tools.

Piloting the rest of the instruments and materials was not necessary. As questionnaires rely on the wording of the items and even slight differences can modify the responses, it is essential to pilot the questionnaires with individuals who are similar to the target group of people who will answer the instrument (Dörnyei, 2003). However, it was unnecessary to pilot the teacher questionnaire as it had already been piloted and validated with ELT teachers in the Chilean context for my Master's Dissertation (Tapia Castillo, 2018). The twelve online sessions and the twenty-four online lessons were not piloted as it would have been time-consuming (see Table 8 for required time). For that reason, I designed them carefully and with support such as definitions, pictures and transcripts so that students could understand them. KET samples are part of Cambridge Assessment and are internationally recognised; therefore, it was not necessary to pilot test them.

3.8 Procedures

3.8.1 Data Collection

As explained in section 3.2, COVID-19 contingency brought some complications to the methodology of this research. The first challenge was convincing headteachers and English teachers to get involved in this study during a pandemic. At the time of contacting schools, I got very few responses. I sent eight hundred e-mails between March 15 and April 15, 2020, to different schools in Chile (see invitation e-mail in Appendix K). I looked for the names of Chilean schools on the official webpage of the Ministry of Education. I searched the school's websites to confirm the data to get the updated contact information of each headteacher's name and e-mail address. Only twenty teachers wrote back to me saying they would like to participate. I created for each of them an invitation for their students in Google forms, which included a short questionnaire to know their names, e-mail addresses, and whether they had access to

tablets/computers/smartphones and internet connection. Also, I gave them a link so that parents could provide consent for their children to participate. The idea was that they could post these two links on their school's website to know how many students wanted to join the sessions. In the end, only eight schools displayed these links.

The next difficulty was getting responses from students, and their participation decreased with time**.** Once students from those eight schools received the invitation to participate, only one hundred and twenty-three responded positively to the invitation and wished to participate. According to the teachers of English, the problem was that most students did not have an internet connection at home and did not have computers, tablets or smartphones to check their e-mails. Also, some dropped the online sessions and did not answer the post-questionnaire. It is hard to know with certainty why this happened, as students had the right to leave the course at any time without the necessity of explaining. Some of them wrote to me to excuse themselves for not continuing due to internet connection problems, technological device problems and lack of time to continue with the sessions as they were overwhelmed with school homework. Table 8 summarises the time required for completing different activities for this study.

Table 8. Study Required Time

Activity	Time	Total Required Time
Answer Questionnaires: ✓ Questionnaire 1 (April 2020) ✓ Questionnaire 2 (June 2020) ✓ Questionnaire 3 (September 2020)	15 minutes per questionnaire (x3)	45 minutes
Develop twelve online sessions (From May 2020 to June 2020)	20 minutes per session (x 12)	4 hours
Attend 24 online English lessons (From July 2020 to September 2020)	60 minutes per lesson (x24)	24 hours
Answer English Tests: ✓ Pre-English Test (July 2020) ✓ Post-English Test (September 2020)	2 hours per test (x2)	4 hours

I did my best to encourage students to participate in all the stages of the study. I was in constant contact with them via e-mail, telling them what to do at every step, and I sent them e-mails to remind them of what they had to do. I replied to every e-mail they wrote to me to solve their questions or problems. I informed them about the benefits they would get with the sessions, and I also highlighted that they are contributing to improving language learning education. I also reminded them that if they participated in all the sessions and answered all questionnaires, they would be able to enter a draw to win one laptop and two tablets. I offered them English lessons with their chosen favourite topics once the MoodleX sessions were over. During the online classes, I provided them with detailed, constructive feedback to help them improve their English.

Despite all my efforts, I got 123 students interested in participating, and 86 completed the requirements to participate (accept an account on MoodleX and answer questionnaire number 1 in April 2020). The number of participants continued to diminish with time; for that reason, I had a different number of participants to answer each of my research questions.

3.8.2 Quantitative Data Analysis

The quantitative data of the questionnaire were transferred from Google Forms and MoodleX to the Microsoft Excel program. Following the recommendations that Phakiti (2010) provides for data preparation, I checked three times that the data were correctly entered, and after that, I imported the excel sheets to the Statistical Package for Social Science (SPSS) version 25 to code the data into suitable labels to later perform appropriate tests. It is worth mentioning that after calculating Cronbach's alpha reliability for all the questionnaires, three items (numbers 10, 12 and 21) were eliminated to improve the reliability of the subscales of the LMI Questionnaire 3 (Q3). For consistency, I preferred to eliminate these three items from all the questionnaires. Therefore, all the LMI Questionnaires (Qs) have 15 items, and all the L2MSS Qs have 18 items.

Reliability coefficient varies from 0 to 1 and should be at least .70 to be considered acceptable (Dörnyei, 2003, 2007; Wagner, 2010). Moreover, Hinton, McMurray and Brownlow (2014), who give more detailed information on the reliability coefficient, indicate that alpha from .90 and above shows excellent reliability; .70 to .90 shows high reliability; .50 to .70 shows moderate reliability; and .50 and below shows low reliability. I will use this guide to refer to Cronbach's alpha values of all the questionnaires I will describe later. The following sections explain data analysis to answer each research question.

3.8.2.1 Data Analysis for RQ 1.

Questionnaire number 1, which included the LMI Q and L2MSS Q, was used to see whether there was a relationship between Chilean students' language mindsets and L2 motivation. It is necessary to check the internal consistency reliability of the questionnaires to calculate to what extent the scores of the items that measure the same thing correlate with each other (Phakiti, 2010). Most coefficients are good or acceptable, and only the L2B subscale is moderate (see reliability coefficients for questionnaire 1 in Table 9). Finally, normality tests, descriptive statistics and correlations were performed on the data to know whether there was a relationship between students' language mindsets and motivation.

Table 9. Cronbach's Alpha Coefficients for Questionnaire Number 1

Scales and Subscales	Student's questionnaire 1 (N=86) α
LMI (15 Items)	0,844
GLB (5 items)	0,751
L2B (5 items)	0,570
ASB (5 items)	0,721
L2MSS (18 items)	0,788
Ideal L2 (6 items)	0,924
Ought-to L2 (6 items)	0,920
Attitudes to L2 learning (6 items)	0,920

3.8.2.2 Data Analysis for RQ 2.

To analyse the relationship between students' language mindsets and their academic achievement, I used students' LMI Q1 and their English GPA 2019. Teachers of English sent me a report with students' average marks in English for the academic year 2019, which were the closest marks to the date they answered the LMI Q1 in April 2020. Seventy-nine students participated in this relationship, as ten had not attended the same school during the year 2019, and thus teachers could not send me their English GPA 2019. I asked these ten students to send me a certificate of 2019 final marks, and 3 of them sent them to me. Reliability coefficients for students' LMI Q1 for the 79 students can be seen in Table 10. After checking reliability, normality tests, as well as descriptive and correlations, were applied.

Table 10. Cronbach's Alpha Aoefficients for LMI Q1 (N = 79)

Scales and Subscales	Students' LMI Q1 (N=79) α
LMI (15 Items)	0,842
GLB (5 items)	0,763
L2B (5 items)	0,591
ASB (5 items)	0,734

3.8.2.3 Data Analysis for RQ 3.

To analyse whether there was a relationship between students' mindsets and their teachers' mindsets, I used student language mindset questionnaire number 1, which is the one that more participants responded to (N = 86). I asked these students' teachers to answer the language mindset questionnaire. All of them answered the questionnaire (N = 14), but ten students were coming from other schools, so I could not get their teachers' answers. Therefore, in total, I analysed the responses of 76 student participants and their English teachers (N =14). First, I checked the reliability of the students' and teachers' language mindsets questionnaires.

Cronbach's alpha scores were sufficient for both questionnaires and their subsections (see Table 11). After that, I checked normality tests, descriptive statistics and correlations.

Table 11. Cronbach's Alpha Coefficients for Students' and Teachers' LMI Qs.

Scales and Subscales	Students' LMI Q1 (N=76) α	Teachers' LMI (N=14) α
LMI (15 Items)	0,846	0,902
GLB (5 items)	0,758	0,891
L2B (5 items)	0,616	0,652
ASB (5 items)	0,748	0,822

3.8.2.4 Data Analysis for RQ 4a.

To check whether the 12 online sessions in MoodleX to promote growth language mindsets impacted upon students' mindsets, I used students' LMI Q1 and LMI Q2 as they were applied before and after the sessions. In addition, LMI Q3, applied three months after the sessions' end, tested these sessions' prolonged effect. As explained in 3.4, a different number of participants answered questionnaires 1, 2 and 3. The responses of 49 students in LMI Q1 and LMI Q2 were used to test the effectiveness of the sessions. The answers of 38 students in LMI Q1, LMI Q2 and LMI Q3 were analysed to verify its prolonged effect. Again, reliability checks were applied to the questionnaires. After that, normality tests, descriptive statistics and Wilcoxon signed-rank tests were used to check whether the sessions modified the participants' mindsets. Reliability was acceptable in most cases and was moderate in the L2B subscale of LMI Q3. Tables 12 and 13 show reliability for LMI Qs 1 and 2 and LMI Qs 1, 2 and 3, respectively. See reliability for each questionnaire and subsections:

Table 12. Cronbach's Alpha Coefficients LMI Qs 1 and 2 to Test the Sessions' Effectiveness

Scales and Subscales	Students' LMI Q1 (N=49) α	Students' LMI Q2 (N=49) α
LMI (15 Items)	0,807	0,904
GLB (5 items)	0,686	0,836
L2B (5 items)	0,565	0,748
ASB (5 items)	0,756	0,779

Table 13. Cronbach's Alpha Coefficients LMI Qs 1, 2 and 3 to Test Prolonged Effect

Scales and Subscales	Students' LMI Q1 (N=38) α	Students' LMI Q2 (N=38) α	Students' LMI Q3 (N=38) α
LMI (15 Items)	0,811	0,761	0,724
GLB (5 items)	0,701	0,628	0,688
L2B (5 items)	0,605	0,642	0,530
ASB (5 items)	0,756	0,612	0,645

3.8.2.5 Data Analysis for RQ 4b.

To determine whether the sessions to promote growth mindsets impacted on students' motivation, I analysed the data of 49 students who answered L2MSS Qs 1 and 2 and diary entry responses. To check the prolonged effect of the sessions, I analysed the data of 38 students who answered L2MSS Qs 1, 2 and 3. Reliability analysis was good in all the questionnaires and their subsections (see Tables 14 and 15), and later I performed normality tests, descriptive statistics and t-tests.

Table 14. Cronbach's Alpha Coefficients L2MSS Q1 and Q2 to Test the Sessions' Effectiveness

Scales and Subscales	Students' L2MSS Q1 (N=49) α	Students' L2MSS2 Q2 (N=49) α
L2MSS (18 items)	0,896	0,859
Ideal L2 (6 items)	0,790	0,895
Ought-to L2 (6 items)	0,918	0,851
Attitudes to L2 (6 items)	0,919	0,949

Table 15. Cronbach's Alpha Coefficients L2MSS Q1, Q2 and Q3 to Test Delayed Post Effect

Scales and Subscales	Students' L2MSS Q1 (N=38) α	Students' L2MSS Q2 (N=38) α	Students' L2MSSQ3 (N=38) α
L2MSS (18 items)	0,800	0,800	0,813
Ideal L2 (6 items)	0,910	0,754	0,648
Ought-to L2 (6 items)	0,904	0,853	0,915
Attitudes to L2 (6 items)	0,923	0,882	0,811

3.8.2.6 Data Analysis for RQ 5.

I examined the pre- and post-KETs to know whether growth-mindset oriented lessons could impact upon students' academic achievement. I used the guidance provided on the official page of Cambridge Assessment English. "Cambridge English exams are recognised by over 25,000 universities, employers and governments around the world" (Cambridge Assessment English, 2020); therefore, they are reliable for assessing the level of proficiency in English. Reading and listening comprehension tests were checked with the answer key provided on the Cambridge website (see answer keys of pre-and-post reading and listening tests in Appendix L). To check writing and speaking tests, I applied the A2 Key Handbook for teachers for exams from 2020, which contains all the necessary information, guidelines and examples to evaluate writing and speaking parts through assessment scales.

In addition, a colleague with five years of experience as a teacher of English as a second language—currently studying for a PhD in Psycholinguistics at the University of Essex—also checked some pre-and-post-writing and speaking tests to have a second opinion. First, I checked all the pre-and post-writing and speaking tests. Then, I selected two pre-writing and speaking and two post-writing and speaking tests (eight assessments in total, which is nearly 30% of the total data) that had obtained different band scores (between 3 and 5) to see if my evaluation was similar to hers. I did not tell her which ones were pre-and post-tests to avoid bias. Once she

checked the tests and assigned them a score using the same guideline and rubrics in the A2 Key Handbook for teachers for exams from 2020, we met to compare them. We had assigned the same band points to seven (out of eight) tests. We disagreed only in assessing one pre-writing test as she had assigned a band 3, and I had given a band 4. We examined this test answer together and realised that all the elements of the message were clear, and there were a few spelling mistakes. Thus we agreed that band 4 was the most appropriate for that response. We believe that we awarded almost the same marks as the performance descriptors from the assessment scales in writing and speaking rubrics were clearly defined. After that, I reviewed the tests for the last time to reassure the assessment was correct (see writing and speaking assessment scales and samples of corrections in Appendix M).

To calculate the score for the Cambridge exam, I followed the instructions from KSE Academy (2019). First, I added up the points of each part of the test. Then, I calculated the percentage of each part, and later I calculated the average score of all the parts. Finally, I converted the percentage using Cambridge's calculator. I sent an e-mail to each student with their scores for each skill, general score, English level and feedback. Once I had the pre-and post-KET scores, I applied normality tests, descriptive statistics and t-tests to see if there was a significant improvement after the 24 online English lessons.

3.8.3 Qualitative Data Analysis

3.8.3.1 Data Analysis for RQ 4a and RQ 4b.

Students answered four diary entry questions on four occasions, producing 31,500 words. A thematic analysis (TA) was conducted to analyse the qualitative dataset, which aimed to respond to research questions that assessed the effectiveness of the sessions in facilitating growth language mindsets and increasing language learning motivation. A TA was suitable for the

analysis as it offered the possibility of an inductive coding analysis that centred on patterned meaning. Patterned meaning consists of compiling "clusters of codes that seem to share a core idea or concept, and which might provide a meaningful 'answer' to your research question" (Braun & Clarke, 2020, p. 35). TA allowed for capturing both semantic (explicit) and latent (implicit) meanings, which helped identify the respondents' beliefs and motivation and answer the research questions accurately.

Most of the students' answers were in Spanish. Bilingual qualitative researchers recommend coding in the data's same language for a more trustworthy analysis (Saldaña, 2021). Therefore, I analysed the data in the same language in which they were produced (Spanish or English). I followed Braun and Clarke's (2020) and Saldaña's (2021) recommendations to proceed with my coding and TA. First, I familiarised myself with the dataset by reading and re-reading the data and making notes of my insights. Then, I started coding the data in NVivo 12. In the first coding cycle, I searched for commonalities and coded the most essential parts of the data. I did five coding cycles (e.g. re-coded some codes, subsumed codes into broader codes) until I was satisfied with the consistency and each code contained suitable segments. I generated initial themes by identifying shared patterned meaning across the dataset in an attempt to answer my research questions.

After this, a second coder analysed 1/3 of the data. This data was translated from Spanish into English for intercoder agreement (the second coder did not speak Spanish). I compared her analysis and codes' labels with mine; they were pretty similar, with minor wording differences (see more detailed information in section 3.9.3.1 and Appendix O). Later, I re-read all the codes again and made some adjustments so that all the codes had proper extracts after applying some minor changes to the codes' labels. Later, I refined, defined and named the final themes which

were more closely related to the research questions (see an example of previous and final themes and codes in Appendix N).

To choose the codes that would contribute to the findings, I selected the ones that approximately one-fourth of the respondents shared, following expert recommendations: "Harding (2019) openly acknowledges that his advice is subjective, yet he recommends that a code shared by approximately one-fourth of the study's respondents merits consideration in the analysis and a possible contribution to the research findings" (as cited in Saldaña, 2021, p.37). Nonetheless, Saldaña (2021) admits that according to his experience:

> "In some cases, the unique instance of a code that appears just once and nowhere else in the data corpus, or a code that appears two or three times across different cases or time periods, may hold important meaning for generating a significant insight in later analysis. (p.37)"

Saldaña (2021) also points out that the same low numbers of code occurrences may also mean something unimportant. For that reason, I assessed the codes corresponding to only a few extracts and decided whether they could be meaningful to the study or not. Those codes classed as unimportant were not included. In contrast, the significant ones were explained in the results chapter to show that only on a few occasions the students misinterpreted aspects of the sessions and, therefore, should be clarified in future research (e.g. counterarguments to the growth mindset theory).

Finally, I wrote my findings using some selected participants' quotes. The number of participants varied as the questions were answered on four different occasions. The first two sets of questions were answered by 39 (sessions 1, 2 and 3) and 41 (sessions 4, 5 and 6) students, respectively. Participation decreased by around 25% in the last two sets of questions as 31 participants answered questions for sessions 7, 8 and 9, and 10, 11 and 12. To show a fair

representation of the participants' voices, I included data extracts of 35 different students and the examples were taken from all the different sets of sessions to keep a balance and show that the patterns were evident across the full data set. If the selected segments were in Spanish, I translated them into English to be included in the results chapter. Pseudonyms changed participants' names to keep anonymity and confidentiality.

Also, on some occasions, I numbered the times the extracts appeared on the dataset to contrast that information with the quantitative data and see whether participants' responses varied among all the sets of sessions they had (as they responded to questions at four different points). "Quantitizing" the qualitative data (transforming non-numeric data into numbers) can be done for methodological reasons, including mixed methods research (Saldaña, 2021). When quantitative and qualitative research examine the same phenomenon, it is feasible to achieve comparable result types and corroborate them by transforming words into numbers (Saldaña, 2021). In this study, it was helpful to quantify the qualitative data to compare the information with the quantitative data and see if the results were similar (e.g. what aspects of the L2MSS drove the students' motivation). Also, as the diary entry questions were answered at four points and assessed different growth language mindset information, it was useful to quantify the data to know, for example, which sessions were more helpful in changing language mindsets and motivation.

Even though I included the six phases recommended for conducting thematic analysis (Braun & Clarke, 2020, pp. 35-36), I went backwards many times to ensure an adequate analysis. According to Braun and Clarke (2020), the process of TA is not rigorously linear, and it is normal to go back to previous phases as this is part of the process of doing good analysis.

Therefore, I conducted a proper TA, which allowed me to complete an in-depth analysis and adequately report the participants' responses.

3.8.3.2 Data Analysis for RQ 5

Students attended 24 English lessons with a growth mindset orientation for two months, during which they had to put into practice some of the strategies to foster a growth language mindset. They had to self-assess their language mindsets, effort, use of strategies, and progress. For the qualitative data analysis, some documents (i.e. activities that were part of the growth language learning strategies) from the plan of strategies to develop growth language mindsets were examined (see appendix F). These activities were chosen for analysis as they could provide insights into the students' effort and improvement and whether the growth mindset strategies helped them to improve their English academic achievement.

The students completed the first document analysed after the first lesson. They were required to write down challenging aims and a specific plan to achieve them. Later, in lesson 13, students revised and evaluated their goals, reflecting on the activities and goals set and whether they had followed their plan. They also reflected on their effort and level of satisfaction with their progress and considered what they could do differently to achieve their proposed goals (in case they had not reached them yet) or set new goals if they had already fulfilled them. In lesson 15, students were invited to reflect on their effort, progress, and use of strategies and evaluate their language mindsets in general and for specific language learning domains. They also reflected on whether there was a relationship between their improvement, effort, and the use of strategies. In total, students produced 10,008 words in these activities.

Just as in RQ 4a and 4b, a TA analysed the qualitative data to answer the research question that examined how effective English lessons with a growth mindset approach were in improving

students' academic performance. Students' answers were in English this time, so data were analysed in this language, and translations were unnecessary.

To conduct my coding and TA, I adhered to the suggestions of Braun and Clarke (2020) and Saldaña (2021). My first step involved thoroughly acquainting myself with the dataset by repeatedly reviewing it and taking note of my observations. Then, I proceeded to code the data using NVivo 12. During the initial coding phase, I sought out commonalities and tagged the most significant portions of the data. I identified shared patterns and meanings across the dataset to answer my research question, creating initial codes. I underwent five rounds of coding, during which I re-coded some of the codes and combined them into broader categories until I was satisfied with the consistency and appropriateness of each code.

I started with ten codes (see appendix N for the previous and final codes) but then reduced them to three by removing some and merging others to create a more concise TA. For instance, I excluded the "Noticing English development" code since, in these extracts, the participants recognised their progress but didn't specify what helped them improve their skills. The code "Growth language mindset in general and for specific domains" wasn't included because the students didn't directly relate it to enhancing academic achievement. The "Noticing English development due to hard work" and "English improvement due to effort" codes were integrated into the code "Effort and the use of strategies influenced English development". Lastly, the codes "Set challenging goals," "Plan to achieve challenging goals," and "Commitment to continuing working hard" were regrouped in Code 1: Hard work and effort to accomplish goals.

Following this, a second coder examined one-third of the data. I then compared the second coder's analysis and codes with my own and found that they were broadly similar, with minor variations in phrasing (see appendix O). Subsequently, I reviewed all the codes once more and

made some modifications to ensure that each code had appropriate excerpts while also making some minor changes to the code labels. Therefore, only three codes remained: Code 1: Hard work and effort to accomplish goals; Code 2: Use of language learning strategies to fulfil goals and Code 3: Effort and the use of strategies influenced English development.

Lastly, I presented my findings by incorporating selective quotes from the participants. In order to provide an unbiased portrayal of the participants' perspectives, I included excerpts from the majority of the students and drew examples from various sources to demonstrate that the trends were consistent throughout the entire dataset. I changed the participants' names to pseudonyms to maintain confidentiality and anonymity.

3.9 Quality of the Research

In this section, I will demonstrate that this research was done with rigour to achieve a quality standard. Dörnyei (2007) highlights that there is a consensus among researchers that it is crucial to document the validity of the findings; however, there is no agreement on the quality criteria that should be applied, and the literature offers different and parallel conceptions and terminology. Reliability and validity are the most widely known concepts; therefore, I will refer to them to prove that my quantitative and qualitative data were collected and analysed carefully, considering relevant research in this area. I will start by briefly describing the importance of mixed methods for research validity, and then I will refer to quantitative and qualitative quality separately.

3.9.1 Mixed Methods Research

Dörnyei (2007) explains that mixed methods research has the exceptional capability of supplying evidence for research validity due to findings' convergence and verification. Triangulation, which involves using various methods in an investigation, effectively reduces the

possibility of bias in qualitative research when different evaluation instruments converge and draw the same conclusions. Actually, triangulation improves the external validation of the findings. Therefore, the variety of tools selected for this investigation, such as questionnaires and diary entry questions, allow for confirming through different methodologies the same results. In the next paragraphs, I will discuss the validity of quantitative and qualitative instruments.

3.9.2 Quality in Quantitative Research

3.9.2.1 Reliability

Cohen et al. (2018) and Dörnyei (2007) state that reliability checks whether instruments and procedures can provoke the same results on different occasions in quantitative research. According to Bachman (2004), one test that estimates reliability is Cronbach's alpha. As described in section 3.8.2, Cronbach's alpha was applied to student questionnaires 1, 2 and 3 and the teacher questionnaire before starting with the data analysis. Dörnyei (2007) states that Cronbach's alpha should approach values above .70. Hinton et al. (2004) highlight that alpha between .50 and .70 shows moderate reliability. Therefore, most coefficients are good or acceptable, and only a few subscales indicate moderate Cronbach's alpha value (see reliability coefficients from Table 9 to Table 15).

3.9.2.2 Content Validity

Lynch (2003) highlights that instruments and procedures must be assessed to trust the results and interpretations of the study. Content validity has been described by Cohen et al. (2018) and Dörnyei (2007) as one of the types of validity used in research. Content validity refers to the fact that researchers must ensure that the instruments cover the essential aspects of the investigated topic (Cohen et al., 2018). As mentioned in the construction of instruments (section 3.6.1), questionnaires were borrowed from previous research. The LMI questionnaire

was created and validated by Lou and Noels, which was designed considering relevant and up-to-date research (e.g. Dweck, 1999; Mercer & Ryan, 2010; Ryan & Mercer, 2012). The L2MSS questionnaire borrowed some items from previous validated investigations concerning language learning motivation (e.g. Papi, 2010; Papi & Teimouri, 2012; Ryan, 2009; Taguchi et al., 2009).

3.9.2.3 Research Validity

Dörnyei (2007) explains that this type of validity concerns the overall quality of the whole investigation, specifically the trustworthiness of interpretations of the research and generalisations beyond the study, also referred to as internal and external validity. He also states that research validity can be demonstrated by rejecting threats to validity. For this reason, I will provide evidence of the main risks to research validity described by Dörnyei (2007): participant attrition, the Hawthorne effect, practice effect, maturation, participants' desire to meet expectations and history.

Participant attrition: This can occur in studies where different data sets are collected from the same participants, and some participants cease their participation. This can be problematic as abandonment might not be random, and participants who leave may differ from those who stay, leaving a group with unequal characteristics. As described earlier in section 3.4, the number of participants in this study decreased with time. Following ethical considerations, students were allowed to give up the sessions at any time without the necessity of explaining the reasons why they wanted to leave. However, some of them sent me e-mails to excuse themselves for not wishing to participate. The reasons they gave me were mainly problems with technological devices, internet connection, clash with school classes, and some feeling overwhelmed with school pressure and activities. I did my best to convince them to stay; however, some problems were out of my reach. To prove that the groups that remained in the

study shared similar characteristics with the ones who left, I am presenting here a table with the participants' information, which shows that there are no significant differences across the three groups.

Table 16. Participants in Questionnaires 1, 2 and 3

Gender			**Grade**			**Type of school**		
Female			9th G			Public		
Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
58.1%	63,2%	63,1%	3,4%	4,0%	2,6%	48,8%	51,0%	55,2%
Male			10th G			Semi-Private		
Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
41,8%	36,7%	36,8%	46,5%	40,8%	44,7%	51.1%	48,9%	44,7%
			11th G					
			Q1	Q2	Q3			
			37,2%	34,6%	31,5%			
			12th G					
			Q1	Q2	Q3			
			12,7%	20,4%	21,0%			

The Hawthorne effect: This is a threat that can be typically found in applied linguistics research. It might be that participants act differently when they know that they are being researched. This threat might apply to my research too, as students knew I was going to see their questionnaires' answers, and they might have wanted to perform well. However, in the instructions for the questionnaires, it was explained that there were no right or incorrect answers and that I was just interested in their ideas. Also, the results of the questionnaires did not directly impact them. If they were doing them to enter the draw to win one laptop and two tablets, they knew that they only had to complete the questionnaires consciously. Finally, they did not know me, so I guess they were not trying to please me as they might have done it with their teachers or someone they knew, cared or had a bond with, for example.

Practice effect: This could be a threat when studies require participants to repeatedly answer a test or questionnaire, as they could improve only by earning more experience by answering the same test. Participants answered the same questionnaire three times; however, it is unlikely they could enhance their results, as there are no correct or incorrect answers in this questionnaire. Beliefs and motivation are related to psychological processes. They never received a score from which they would want to improve or perform differently. Also, they were asked to indicate the extent to which they agreed or disagreed with 36 affirmations every two and three months, so it is unlikely they could remember exactly what they had marked before and how to do better. I also know that they consciously answered the questionnaires as I included positively and negatively worded items to ensure they were reading properly and responding accurately. Besides, the qualitative component added to this research would allow to compare and contrast the information collected quantitatively and find inconsistencies, if any.

Maturation: This could be a matter of long studies. Participants answered questionnaire 1 in April, questionnaire 2 in June, and questionnaire 3 in September; therefore, there was a five-month gap between answering the first and the last questionnaire. Consequently, it may be possible that participants could have experimented naturally with mental changes throughout these five months (without external influence). However, it was necessary to do it this way as one of the objectives of this research was to test the effectiveness of the sessions and to see if they had a prolonged effect. More substantial maturation risk occurs in more extended investigations; hence, it is unlikely that maturation represents a significant threat in this investigation. In addition to this, due to the nature of this research, this should not be a problem. This investigation was established with the assumption that motivation and mindsets are dynamic. However, some studies (e.g. Gardner et al., 2004; Peacock, 2001) show that they are

not highly susceptible to change. Beliefs can indeed change over time; however, it is unexpected that this occurs abruptly, as according to Williams et al. (2015), changes usually occur gradually. Peacock (2001) reported that 146 trainee ESL teachers' beliefs changed very little over their three years of study in Hong Kong. Gardner et al. (2004) assessed the motivation of 197 university students throughout a 1-year language programme on six occasions and found that there was no significant variation in state motivation. Having this in mind, this research intended to change students' language mindsets and motivation through some growth mindset sessions. There are no high possibilities that this would have happened as an effect of pure maturation in only five months.

Participants' desire to meet expectations: This is also called social desirability bias. It can occur when participants are given information about the expected results of the investigation, and they start performing to fulfil those expectations and social expectations that are respected. In my study, students completed some online sessions explaining the importance and benefits of a growth mindset. For this reason, some students might have guessed the expectations of my research. However, if this got to happen, it could have occurred specifically in the answers to LMI Q2 (as they answered this questionnaire right after the 12 online sessions). Therefore, this would not impact on the whole research but only RQ 4a. I did not use LMI Q2 to answer RQ 1, 2, 3, 4b and 5.

History: Unanticipated events outside the research can modify participants' performance and outcomes. The COVID-19 pandemic might have had an impact on students' behaviour. Students could not attend school, their classes were changed to an online modality, or they had to complete activities assessed by their teachers without much support. Many felt unmotivated to study without the optimal conditions. This unexpected situation might have impacted upon

students negatively by decreasing their motivation to learn English. This might be one of the reasons why some students abandoned the study.

3.9.3 Quality in Qualitative Research

3.9.3.1 Reliability and Validity

Reliability and validity will be addressed first by referring to the characteristics of qualitative instruments used in this research. Next, the mitigation of the impact of social desirability bias will be discussed. Furthermore, the importance of organising and ensuring the retrievability of collected data for improving reliability will be highlighted. Finally, information on inter-coding agreement and examples of the coding process will be provided.

Diary entry questions were used for the qualitative research component of this study to answer RQs 4a and 4b. Some strengths of this tool can help validate the study's quality as they do not embody the threats that other methods entail. Diaries might generate information that cannot be accessed using other research tools and allow for in-depth analyses. For example, Alaszewski (2006) specifies that diaries can facilitate access to phenomena that are hard to reach and observe and can depict experiences and feelings. Dörnyei (2007) explains that these studies bring out the participants' description and interpretation of their own thoughts and feelings. Also, according to Alaszewski (2006), most social science methods collect information only once and trust participants' memory; however, diary entries diminish inaccuracies for not recalling specific situations in the past. Therefore, diaries reduce the retrospective bias in reports that concern past events (McLaren & Solomon, 2010). As participants wrote down their own answers and described their own beliefs, feelings and emotions, there is no need to validate many of the common threats in qualitative research which are related to the researcher's subjectivity, distortion and biases at the moment of documenting and describing participants' performances or

attitudes.

To address RQ 5, certain materials, such as activities and reflections, were examined. Since participants also provided their personal responses and detailed their own beliefs, strategies, and effort, there is no need to address typical concerns associated with qualitative research, such as the researcher's biases, distortions, and subjectivity when recording and interpreting the participants' behaviours and attitudes.

Dörnyei (2007) explains that social desirability bias occurs when participants provide responses that are socially acceptable or desirable rather than truthful. In this investigation, students were made aware of the anonymity and confidentiality of their answers, which may help mitigate the impact of social desirability bias. Additionally, the research included not only qualitative but also quantitative instruments to investigate research questions 4a, 4b, and 5, increasing the findings' validity and reliability.

The lack of interaction between the researcher and the participants can help diminish social-desirability bias. When participants are aware that they are being observed or evaluated by a researcher, they may be more likely to respond in socially desirable ways rather than providing honest and authentic responses. In the case of the diary study, where students never met the researcher while responding to diary entry questions to assess whether the sessions on MoodleX changed their incorrect language learning beliefs and increased their language learning motivation, the absence of researcher-participant contact may have worked to mitigate social desirability bias in the students' responses. Without the fear of being judged or evaluated, the students may have been more likely to provide honest and genuine responses, providing valuable insights into their language learning beliefs and motivation. Therefore, the absence of researcher-participant contact in this study may have allowed for a more accurate and authentic representation of the students' experiences and perceptions regarding their beliefs and

motivation.

Although there was researcher-participant contact during the students' completion of activities and reflections related to the 24 English lessons with a growth mindset orientation, the likelihood of social desirability bias being a major issue is low. This is due to the fact that each participant provided their own unique and detailed examples of how their effort and use of strategies impacted their progress. By deeply reflecting on their experiences, the students were able to provide a more honest and authentic representation of their progress, which decreases the likelihood of social desirability bias influencing the findings. Therefore, there can be greater confidence in the reliability and validity of the data collected from the students' activities and reflections in the context of qualitative research.

Marshall and Rossman (1995) state that to improve reliability, researchers can keep all collected data in an organised and retrievable format so that other investigators can retrieve it and re-analyse it if they wish. In this study, all the information that participants proportioned in their diary entries was stored in the database systems of the applications MoodleX and Google Forms to be easily accessed. Additionally, the students' answers during the activities derived from the 24 English lessons were stored in my personal email account and laptop. These qualitative data were inserted all together in the software NVivo, which also helped me develop a consistent method for handling the data, coding and analysis. Also, it is essential to check the accuracy with which the researcher codes the data (Maxwell, 1992). Thus, examples of how I coded the qualitative data are provided in Figures 1, 2 and 3 to demonstrate that this research is reliable (see next pages).

Figure 1. Example of the Coding Process for Language Mindsets

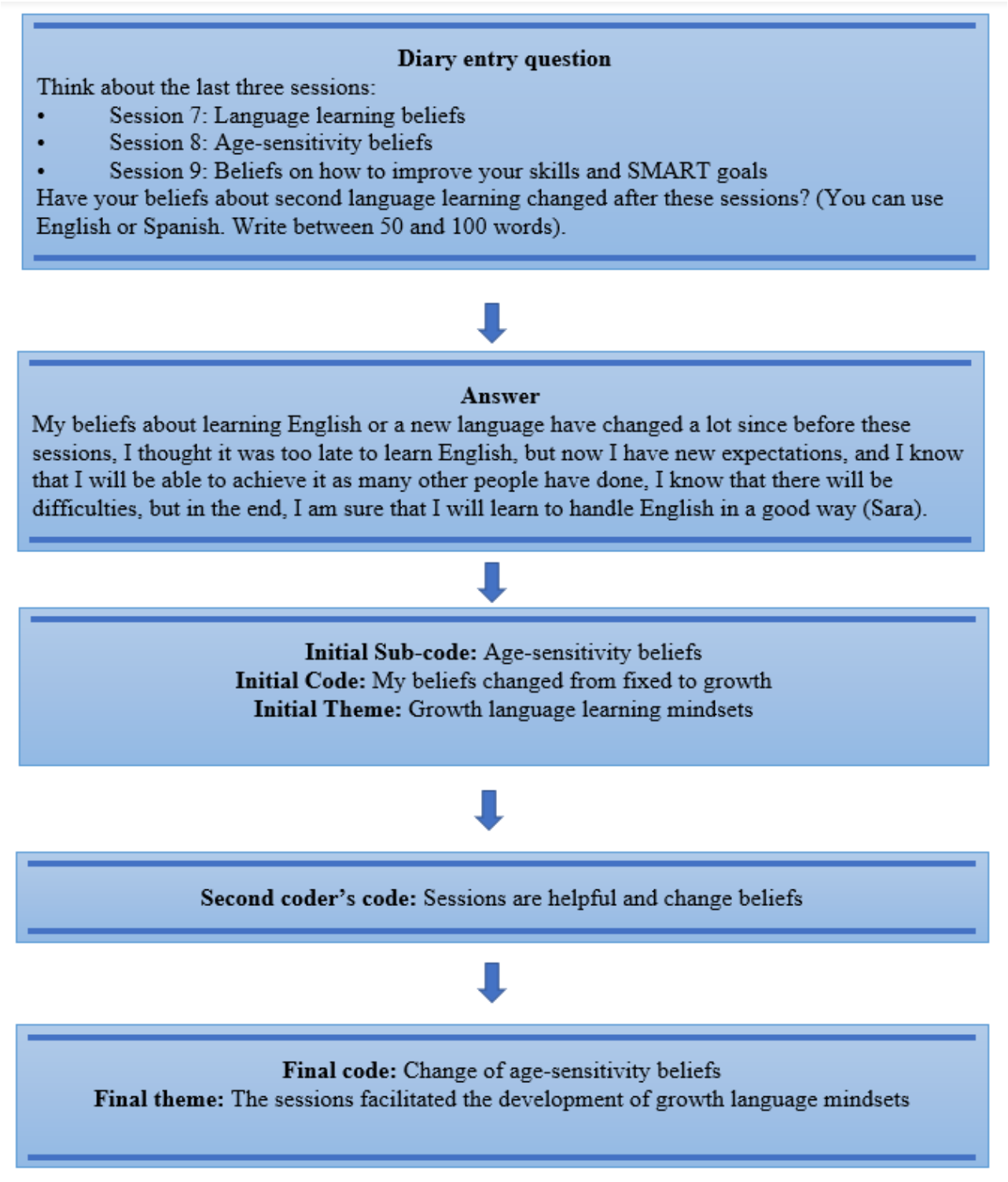


Figure 2. Example of the Coding Process for L2 Motivation

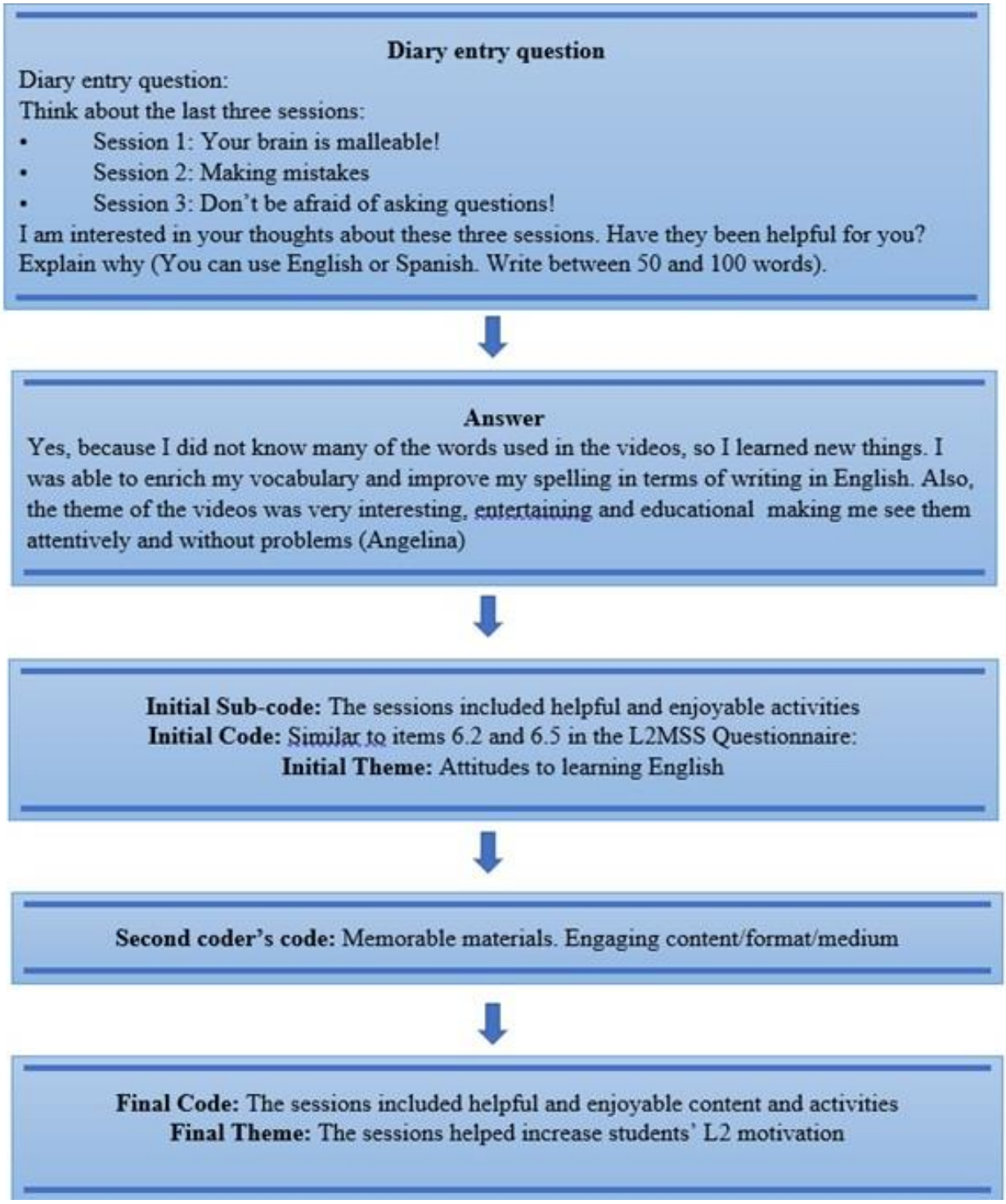
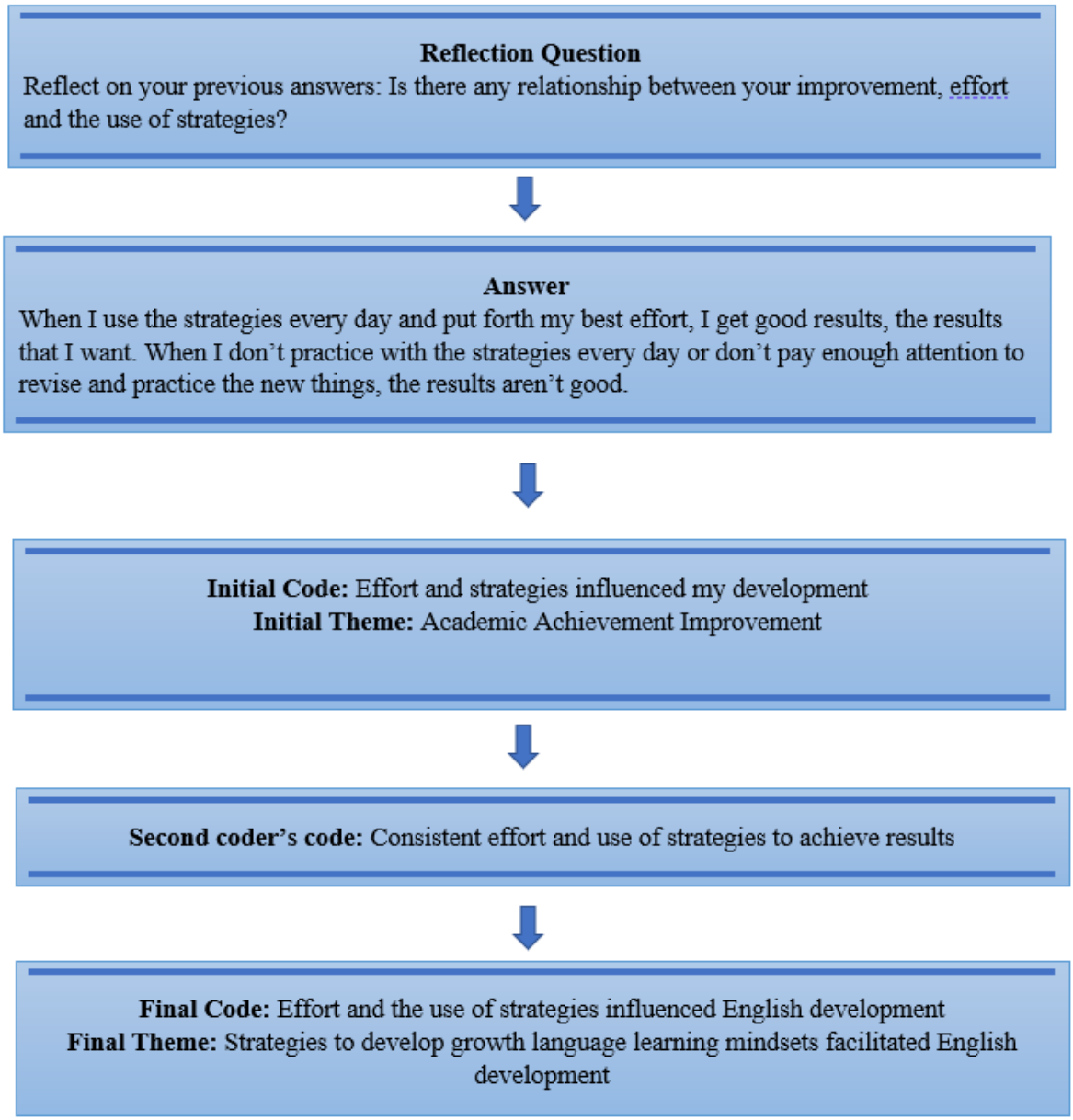


Figure 3. Example of the Coding Process for Academic Achievement



One strategy to check reliability and validity in qualitative data is to refer to the procedures that the researcher used during the investigation, for example peer checking (Dörnyei, 2007). In qualitative studies, it is common to ask other qualitative researchers to check some aspects developed by the researcher (Dörnyei, 2007). Inter-coder agreement should be

conducted to check whether other people agree with the codes used by the researcher (Creswell, 2014). Inter-coder reliability can be fulfilled when the coders agree on the codes used for the same segments in the data (Creswell, 2014). For this reason, a colleague coded part of the data. The second coder was a PhD candidate in ELT at the University of Essex. She was trusted to analyse some of the data as her studies concerned language learning psychology, especially emotions and motivation, and she was also familiar with the growth mindset theory. She read and coded one-third of the dataset (previously translated from Spanish into English). After that, we compared the data and realised that we had given codes almost to the same units of text and the codes' labels shared the same essence; we only had differences in the word choices. For example, I coded a student's response as "The sessions helped to confirm my growth language mindset" and the second coder as "Sessions reinforced existing beliefs." We discussed such differences and agreed on the final labels. For example, the final label for the previous example was "The sessions helped to strengthen existing growth mindsets" (see an example of inter-coder agreement in Appendix O).

3.10 Conclusions

This chapter described the different methodological decisions and procedures used in this study. Participants, materials, instruments and methods were carefully chosen to produce reliable research. The COVID-19 situation affected this methodology; however, it was possible to modify and adjust the materials and procedures to an entire online modality. To analyse the quantitative data, I used SPSS software. First, Cronbach's alpha coefficients and descriptive statistics were calculated. Then, normality tests were performed to choose the right inferential tests according to the characteristics of the data. Finally, correlations and t-tests (and equivalent non-parametric tests) were applied to see the relationship between different variables and test the

effectiveness of sessions in MoodleX and online classes. Qualitative data were analysed using the NVivo software; therefore, qualitative coding was applied to examine all the answers participants provided in their diary entry questions. Finally, quality was presented to demonstrate the reliability and validity of quantitative and qualitative methods.

Chapter 4: Results

4.1 Introduction

Results will be presented by answering the research questions of this investigation. The first three answers will show whether there is a relationship between students' language mindsets and their motivation to learn English, students' language mindsets and English marks, and students' mindsets and their teachers' mindsets. Questions 4a and 4b will address whether the sessions to promote a growth mindset can change students' language mindsets and their motivation to learn English. Finally, by answering RQ 5, it will be possible to know whether English classes with a growth-mindset orientation can improve students' achievement. The quantitative analysis used an alpha level of .05 for all statistical tests.

4.2 RQ 1: Is There a Relationship Between Students' Language Mindset and L2 Motivation?

The first step to knowing whether there was a relationship between students' language mindsets and their motivation to learn English was to check the data's normality to choose a suitable inferential test. Eighty-six participants answered the LMI Q1 and the L2MSS Q1. According to Ricci (2005), the Shapiro-Wilk test is the most useful test for samples under 50 (cited in Larson-Hall, 2016, p.109). As this sample was larger than 50 (N = 86), the Kolmogorov-Smirnov test was used to assess normality. The significance value of the LMI Q1 was .006, demonstrating that the data were not normally distributed ($p < .05$). The value of the L2MSS Q1 is .083, which indicated that the data were normally distributed ($p > .05$). This information is summarised in Table 17.

Table 17. Tests of Normality for LMI Q1 and L2MSS Q1 (N = 86)

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
LMI Q1	.116	86	.006	.883	86	.000
L2MSS Q1	.090	86	.083	.983	86	.312

a. Lilliefors Significance Correction

Hinton et al. (2014) explain that when variables are produced by the same participants, it is possible to examine their association by a correlation. Having one non-normal distributed variable and one normal distributed variable, I used Spearman's rho test, a non-parametric test, to check the correlation between LMI Q1 and L2MSS Q1. Spearman's rho test is appropriate for data that does not satisfy the distribution normality assumption (Dörnyei, 2007; Hinton et al., 2014). Results showed a statistically significant correlation. Cohen et al. (2018) state that correlations around .30 are low; therefore, there was a weak positive correlation between the two variables, $r(86) = .36$, $p = .001$. The correlation between mindsets and motivation is shown in Table 18.

A scatterplot summarises the results (Figure 4). Overall, there was a weak, positive, but statistically significant correlation between language mindsets and motivation to learn English. The scatterplot shows that students with lower mindset scores (between 1 and 3) tend to have lower motivation (between 2 and 3 points). Students who got the highest mindset scores, between 4 and 5, vary in their motivation as their motivation scores fluctuate between 3 and 5. There are no students with low mindset scores and high motivation to learn English.

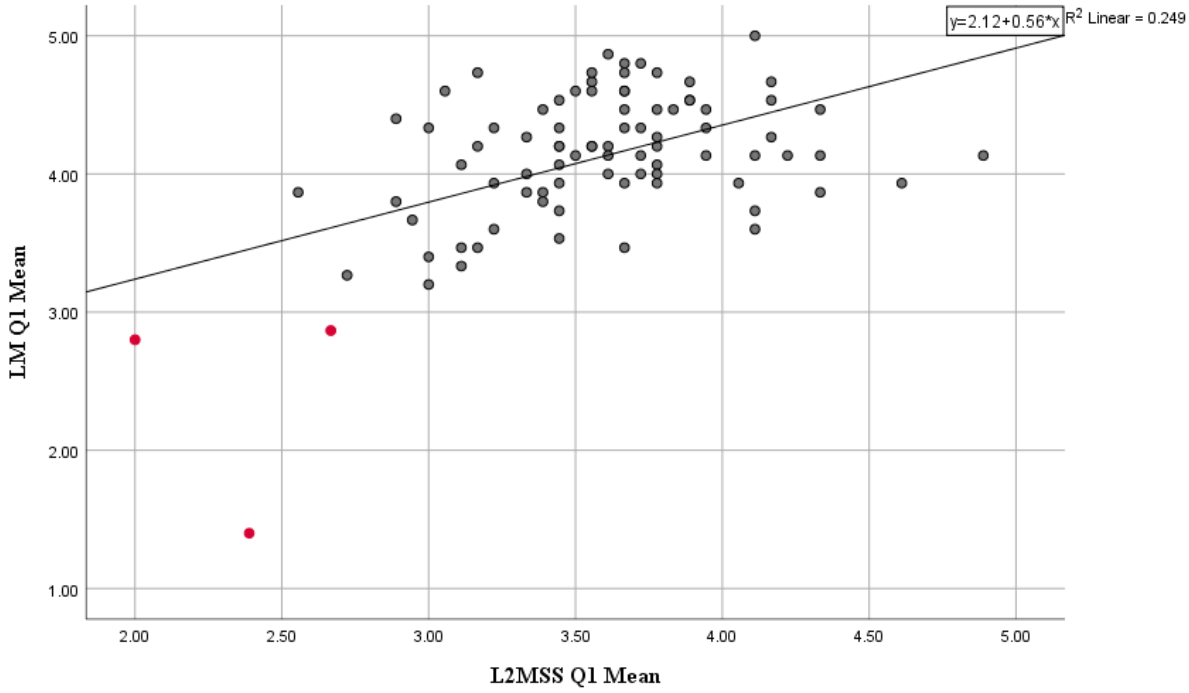
Table 18. Correlation Between Students' Language Mindsets and L2 Motivation

Correlations

			LMI Q1	L2MSS Q1
Spearman's rho	LMI Q1	Correlation Coefficient	1	.364**
		Sig. (2-tailed)	.	0.001
		N	86	86
	L2MSS Q1	Correlation Coefficient	.364**	1
		Sig. (2-tailed)	0.001	.
		N	86	86

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

Figure 4. Scatterplot of Students' Language Mindsets and L2 Motivation



Later, in a more in-depth analysis, I correlated the students' language mindsets and the L2MSS sub-scales: Ideal L2 self, Ought-to L2 self and Attitudes to learning English. A

Spearman's rho correlation coefficient was computed to assess these relationships. The three correlations were statistically significant. There was a positive correlation between language mindsets and Ideal L2 self, $r(86) = .42$, $p < .001$, and language mindsets and Attitudes to Learning English, $r(86) = .53$, $p < .001$. However, there was a negative correlation between mindsets and Ought-to L2 self: $r(86) = -.28$, $p = .013$.

Table 19. Correlation Between Students' Language Mindsets and L2 Motivation Sub-scales.

Correlations

			LM Q1	Ideal L2	Ought to L2	Attitudes to L2
Spearman's rho	LM Q1	Correlation Coefficient	1	.418**	-.267*	.526**
		Sig. (2-tailed)	.	0	0.013	0
		N	86	86	86	86
	Ideal L2	Correlation Coefficient	.418**	1	-0.038	.565**
		Sig. (2-tailed)	0	.	0.731	0
		N	86	86	86	86
	Ought to L2	Correlation Coefficient	-.267*	-0.038	1	-.217*
		Sig. (2-tailed)	0.013	0.731	.	0.045
		N	86	86	86	86
	Attitudes to L2	Correlation Coefficient	.526**	.565**	-.217*	1
		Sig. (2-tailed)	0	0	0.045	.
		N	86	86	86	86

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

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

According to Cohen et al. (2018), correlations from .20 to .35 show a modest relation, while correlations near .50 show a moderate effect. Therefore, language mindsets correlated weakly with general L2 motivation and moderately correlated with the Ideal L2 self and Attitudes to learning English. Also, there was a weak negative relationship between language

mindset and the motivational sub-scale related to Ought-to L2 self (see Table 19). In short, language mindsets correlated better with certain aspects of motivation in the L2MSS questionnaire than with the whole questionnaire.

After completing these tests, I performed descriptive statistics on the three items of the L2MSS Q1. It is possible to see that mostly the Ideal L2 self and Attitudes to learning English triggered students' L2 motivation to learn English (see Table 20).

Table 20. Descriptive Statistics for Ideal L2 Self, Ought-to L2 self and Attitudes to L2

Descriptive Statistics

	N	Mean
Ideal L2_Q1_Mean	86	4.4247
Ought-to L2 Q1 Mean	86	1.9049
Attitudes to L2 Q1 Mean	86	4.3550
Valid N (listwise)	86	

Similarly, in the qualitative thematic analysis, I found an enormous difference in the number of extracts for each theme. The Ideal L2 self and Attitudes to learning English had many extracts (around 100), and the Ought-to L2 self had only two quotes. Also, the two extracts related to the Ought-to L2 self are associated with a general necessity or obligation to learn English, without mentioning a sense of duty with any other person, as is the case with all the items in the L2MSS questionnaire, which allude to parents, friends or significant others. Only one student mentioned his parents on two occasions, but not to say he studied English because he felt his parents' pressure. On the contrary, he referred to his parents to say they supported his wish to learn this language: "I like everything, a language that has always been in my life and in which my parents have always helped me learn this language. …" (David). In short, similarly to the quantitative findings, in the qualitative ones, it is also possible to note that the participants do

not feel motivated to study English as an obligation to please other people; instead, they learn English to fulfil their personal goals.

4.3 RQ 2: Is there a Relationship Between Students' Language Mindset and English Academic Achievement?

The data of seventy-nine students were used to answer this question. Kolmogorov-Smirnov test showed that both data were not normally distributed as both *p* values were lower than .05: for the language mindset questionnaire, $p = .008$, and for the English mark, $p < .001$ (see Table 21).

Table 21. Normality Tests for LMI Q1 and English GPA (n = 79)

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
LMI Q1	.119	79	.008	.855	79	.000
English GPA 2019	.172	79	.000	.868	79	.000

a. Lilliefors Significance Correction

A Spearman rho correlation test was conducted to determine the relationship between students' mindsets and their English GPA. There was a negative weak correlation, however this was not significant, $r(79) = -.002$, $p = .99$.

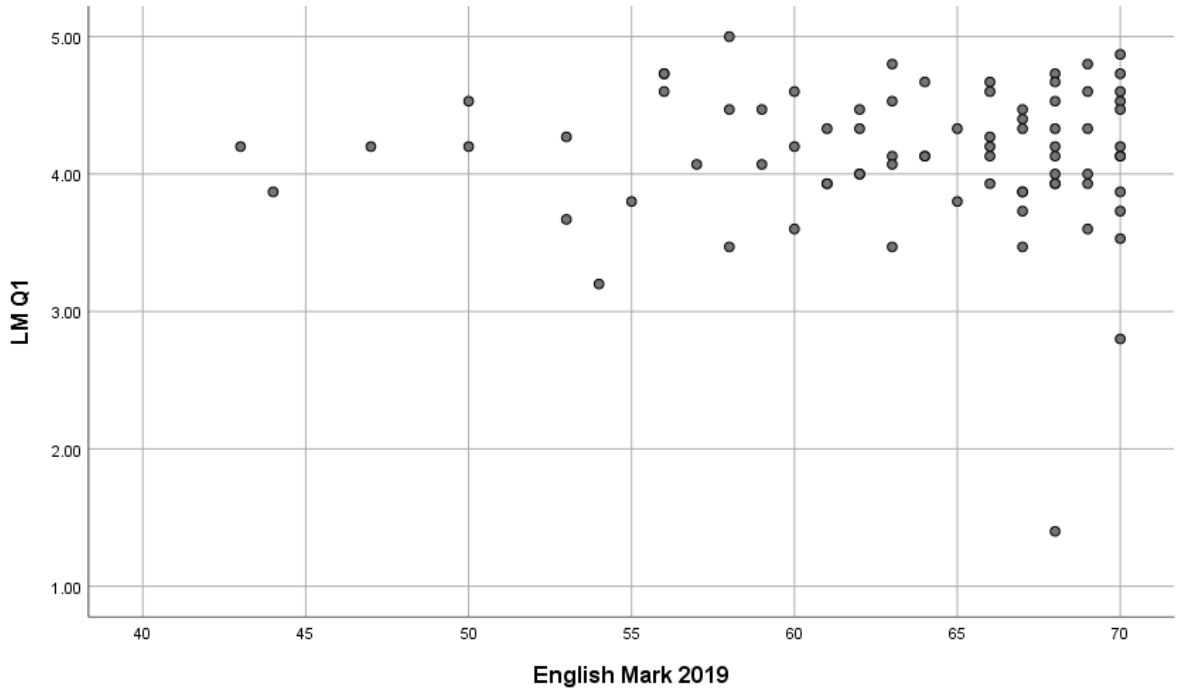
Table 22. Correlation Between Students' Language Mindsets and their English Marks

Correlations

			LM Q1	Mark 2019
Spearman's rho	LM Q1	Correlation Coefficient	1.000	-.002
		Sig. (2-tailed)	.	.988
		N	79	79
	English Mark 2019	Correlation Coefficient	-.002	1.000
		Sig. (2-tailed)	.988	.
		N	79	79

In Figure 5, it is possible to see a scatterplot that confirms that there is no correlation between mindsets and academic achievement. Most students had good marks (scores between 6 and 7). Also, it is possible to see that most students obtained medium and high language mindset scores (between 3 and 5).

Figure 5. Scatterplot of Students' Language Mindsets and English Marks



4.4 RQ 3: Is There a Relationship Between Students' and Teachers' Language Mindsets?

To answer this question, I used the results of students' LMI Q1 and their teachers' LMI Q. I performed the Kolmogorov-Smirnov test to check the normality of both data sets. Both questionnaires were not normally distributed ($p < .001$), as can be seen in Table 23.

Table 23. Normality Test for Students' and Teachers' Language Mindset Questionnaires

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
Students LM Q1	.141	80	.000	.852	80	.000
Teachers LMQ	.186	80	.000	.900	80	.000

a. Lilliefors Significance Correction

As data were not normally distributed, Spearman's rho test was applied to check whether there was a correlation between these two variables. The results demonstrated a weak, positive correlation between the two variables $r(80) = .073$; however, the relationship was not significant ($p = .520$), as can be seen in Table 24.

Table 24. Correlations Between Students' and Teachers' Language Mindsets

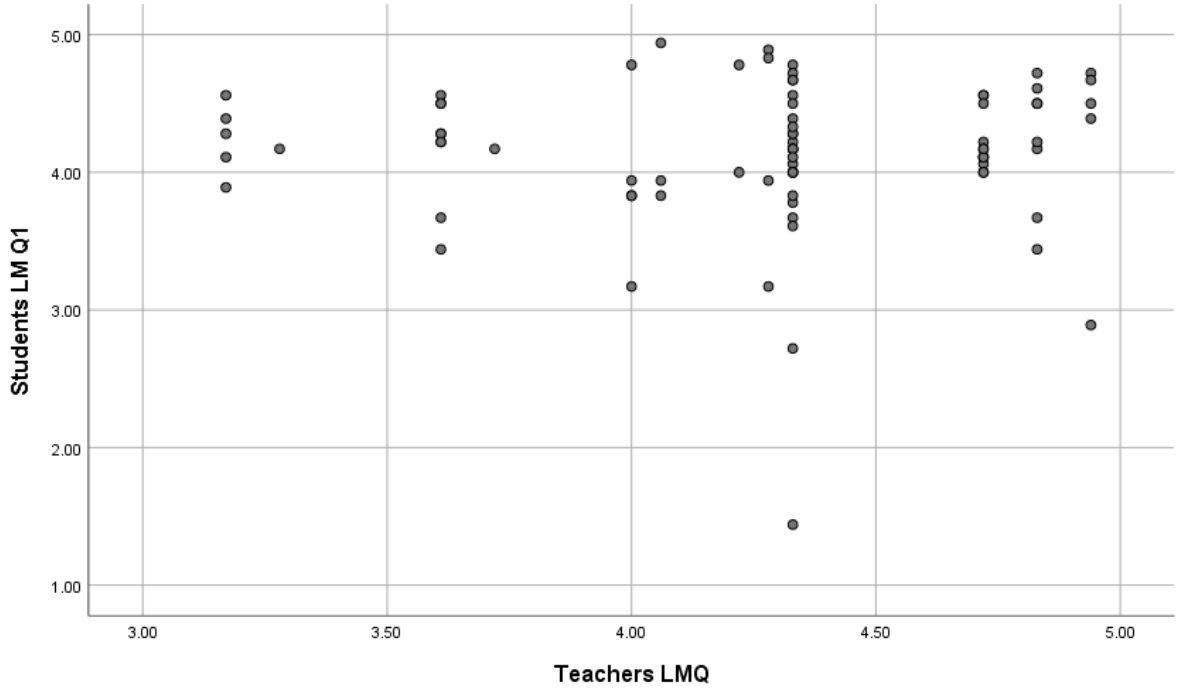
Correlations

			Students LMI Q1	Teachers LMI Q
Spearman's rho	Students LMI Q1	Correlation Coefficient	1.000	.073
		Sig. (2-tailed)	.	.520
		N	80	80
	Teachers LMI Q	Correlation Coefficient	.073	1.000
		Sig. (2-tailed)	.520	.
		N	80	80

In Figure 6, it is possible to see the relationship between students' and teachers' language mindsets in a scatterplot. It is observed that most students and all teachers got medium and high language mindset scores that varied between 3 and 5 points. It is also noticed that even when teachers got between 3 and 3.5 points in their language mindsets, their students still got higher results, between 3.9 and 4.8 approximately, which shows that, in this case, students' mindsets are more growth-oriented, independently of their teachers' mindsets. For teachers who got between 4

and 5 points, most of their students got similar results. In this sample, there were not many teachers or students with low language mindsets scores; therefore, it is not possible to find a higher or significant correlation.

Figure 6. Scatterplot of Students' and Teachers' Language Mindsets



4.5 RQ 4a: Can Sessions to Promote Growth Language Mindsets Impact Upon Students' Mindsets?

4.5.1 Quantitative Data: Immediate Effect

To check whether the sessions to promote growth language mindsets were effective, I first checked the data distribution to choose a proper inferential test. Shapiro-Wilk, the most powerful test for samples under 50, showed that both questionnaires' data were not normal: in LMI Q1, $p = .016$, and in LMI Q2, $p < .001$.

Table 25. Normality Tests for Language Mindsets' Questionnaires 1 and 2 (n = 49)

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LMI Q1	.101	49	.200*	.941	49	.016
LMI Q2	.238	49	.000	.630	49	.000

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

To compare two samples, the choice of test is usually the t-test. However, as the distribution of the LMI Q1 and LMI Q2 was not normal, the assumptions to use the paired t-test were not met. For that reason, I used the Wilcoxon Signed Rank Test in SPSS, a non-parametric equivalent to a paired t-test (Hinton et al., 2014), to check whether the sessions were effective in improving the participants' language mindset scores. The Wilcoxon signed-rank test revealed that the results of the LMI Q2 were significantly higher after the sessions (Md = 4.67) compared to before (Md = 4.20), z = -4.41, p < .001. See Tables 26 and 27 for more detail.

Table 26. Descriptive Statistics of LMI Q1 and LMI Q2

Descriptive Statistics

						Percentiles		
			Std.				50th	
	N	Mean	Deviation	Minimum	Maximum	25th	(Median)	75th
LMI Q1	49	4.1973	0.46487	2.8	5	3.9333	4.2	4.5333
LMI Q2	49	4.5293	0.5742	1.33	5	4.4667	4.6667	4.8333

Table 27. Test Statistics for Wilcoxon Signed Ranks Test

Test Statistics[a]

	LMI Q2 – LMI Q1
Z	-4.412[b]
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

Figure 7 shows the effects of the sessions. Forty-nine participants answered LMI Q1, participated in the 12 sessions to develop a growth mindset and then answered LMI Q2. Thirty-eight of those participants got higher scores, seven got lower scores, and four maintained their original scores.

Figure 7. Differences Between LMI Q1 and LMI Q2

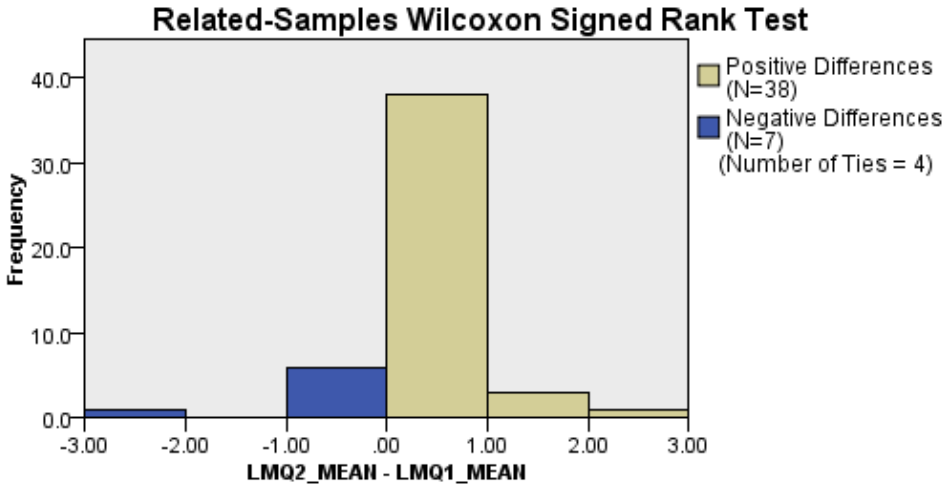
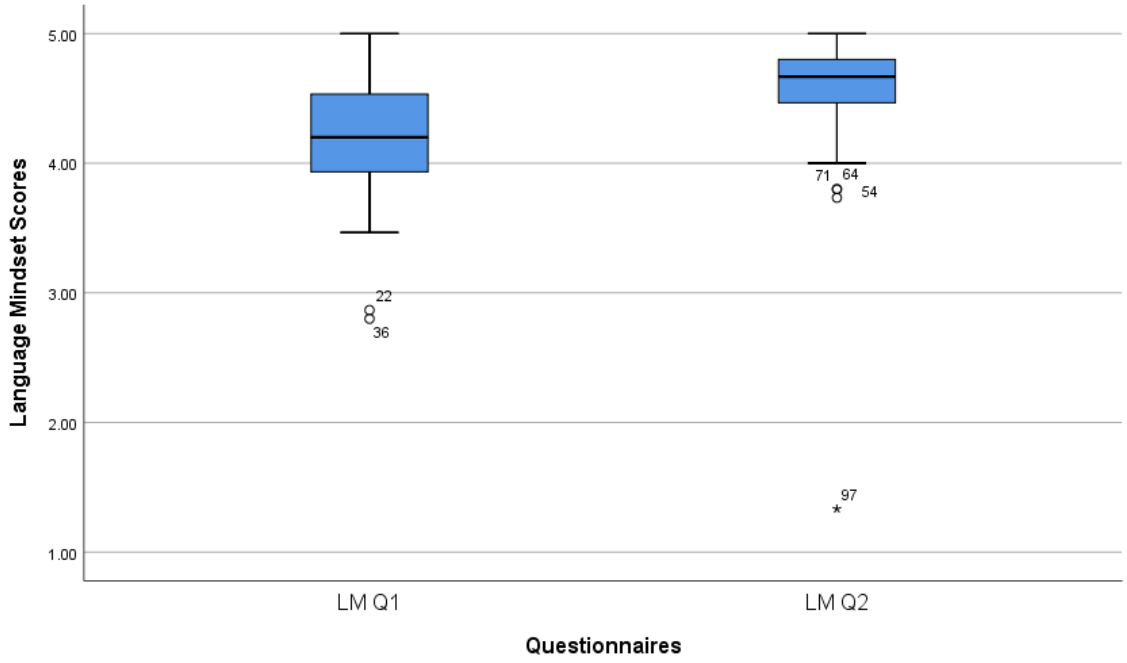


Figure 8 shows a graphical representation of the score differences after the sessions to develop growth language mindsets. The boxplots demonstrate that the scores got higher after the

12 online sessions. In the LMI Q2, most students got scores above 4, and the data are more concentrated, indicating that most students got more similar results.

Figure 8. Boxplots of LMI Q1 and LMI Q2



4.5.2 Qualitative Data

Diary entry questions were used to find out whether the sessions were able to change students' language mindsets by asking them whether they had found the sessions helpful and whether the sessions had changed their language learning beliefs. Students' responses showed that for most of them, the sessions successfully helped them change incorrect beliefs and became aware of growth mindset related content that made them more growth mindset oriented. Also, some students demonstrated having a growth language mindset before the sessions. These two were this qualitative research's central themes, which align with the quantitative results. Finally, the last theme of this research revealed some counterarguments to the growth mindset theory.

4.5.2.1 Theme 1: The Sessions Facilitated the Development of Growth Language Mindsets.

Thirty-eight students—a significant number considering that forty-one were the maximum in answering the diary entry questions—stated in over 100 extracts that the sessions helped them change their beliefs regarding language learning throughout the activities. Even though beliefs' changes were reported throughout the sessions, most changes were reported in sessions 7, 8 and 9 (37 extracts), then in sessions 4, 5 and 6 (33 extracts), later in 10, 11 and 12 (18 extracts) and finally in sessions 1, 2 and 3 (14 extracts). This means that specific topics (e.g. age-sensitivity beliefs) were more influential in changing the students' mindsets than others (e.g. brain malleability). On some occasions, students only expressed that their beliefs changed without attributing this change to anything special and just explained that their thoughts had changed or that the sessions helped them realise that they could learn a new language. On other opportunities, the students explicitly mentioned what topics or ideas changed their beliefs, such as the importance of effort and mistakes for learning. It is essential to highlight that students mentioned the contents of the twelve sessions in MoodleX to inform their language learning beliefs changed. However, only the most representative and significant ones (as explained in section 3.8.3.1) will be described.

4.5.2.1.1 Code 1: Change of Language Learning Beliefs.

Throughout the sessions, twenty-two students—representing 63% of the participants, considering that the average number of participants who answered each set of questions was thirty-five—did not allude to a specific reason for changing their beliefs. Some said that their beliefs had changed by making short comments, such as Nicolas (sessions 7, 8 and 9; question 1), who wrote, "yes [the sessions have been helpful], since some myths or thoughts I had about

learning English were debunked." While other students explained a bit more about their experiences, such as Laura (sessions 1, 2 and 3; question 4), who expressed that even though she knew some things, others were entirely new to her:

> Well, the truth is that they did change a little, despite having an open mind about learning a new language, in addition to the fact that I knew that to learn a new language, you need to have patience, work hard and work hard to achieve it, I learned other things that I totally did not know, and that helped me to make my mindset about this even more open and positive than before.

I also found extracts in which the participants explicitly said that now they believe that they can learn a new language; for example, Ana (sessions 10, 11 and 12; question 4) said:

> Yes, absolutely [my beliefs have changed] ... at the beginning of this trajectory, I thought it was impossible to learn since my thoughts were closed as: I do not think that I can learn, it is not my native language, or why should I learn if it will never be useful, but with these lessons, I changed those thoughts a lot. The truth is that it is very important because one never knows when you will need to know English, as in a job interview, on a trip or even to understand a song; I really like to learn.

Students reported this change of beliefs throughout all the sessions. Although they did not allude to specific motives, it is possible to see that most of these changes occurred between sessions 4 and 9. This shows that information about the importance of challenges, failure and knowing that anyone can learn anything (sessions 4, 5 and 6), as well as language learning beliefs and age-sensitivity beliefs (seen in sessions 7, 8 and 9), might have sparked these changes.

4.5.2.1.2 Code 2: Change of Age-Sensitivity Beliefs.

Some students specified what topics had changed their beliefs. The most popular topic that helped change the students' beliefs was related to age sensitivity. Fifteen students reported having learned that anyone can learn a new language at any age, and this made them change their age-sensitivity beliefs. Almost all these extracts were found after the students learned about this

topic in sessions 7, 8 and 9. Thirty-one participants answered those questions, meaning nearly 50% of those students modified their age-sensitivity beliefs after those sessions.

> My beliefs about learning English or a new language have changed a lot since before these sessions, I thought it was too late to learn English, but now I have new expectations, and I know that I will be able to achieve it as many other people have done, I know that there will be difficulties, but in the end, I am sure that I will learn to handle English in a good way. (Sara, sessions 7, 8 and 9; question 4)

One particular student had fixed mindsets regarding age-sensitivity beliefs before learning that age is not an impediment to learning. In the diary entry questions after the first three sessions, Alex said: "No [my beliefs have not changed], since I believe that anyone can learn a second language; however, I think that age is a variable that affects the learning of a second language." Then, after sessions 4, 5 and 6, he said: "I still believe that an older person will have greater difficulties in the process of learning a new language." However, after sessions 7, 8 and 9, this participant changed his beliefs: "Let's say yes [my beliefs have changed] after the examples addressed in session 8, showing examples of famous people who incorporated a second language in adulthood after the schooling process."

This student held a fixed mindset for the age-sensitivity beliefs until he had access to session number 8, which taught students through a questionnaire, scientific evidence and famous people's experiences that anyone can learn a new language despite their age. Therefore, the evolution of this student's answers demonstrates that the sessions helped change his incorrect beliefs.

In general, students' responses showed that this specific topic (i.e. age-sensitivity beliefs) was the most important in changing students' incorrect beliefs and helping to facilitate growth language mindsets in the participants.

4.5.2.1.3 Code 3: Change of Beliefs Due to Varied Growth Mindset Topics.

Twelve students—representing 34% of the average number of students who answered the questions—named not one but various topics that changed their thinking about language learning. For example, these students thanked to have learned about the importance of effort, setting challenges and goals and brain malleability. They also learned that mistakes and failures do not impede learning. They learned that they did not have to be afraid of asking questions and did not have to give up their dreams. Finally, they also expressed happiness when realising that anyone can learn another language at any age and from any part of the world.

These students mentioned that more than one growth mindset topic made them change their beliefs. For example, Cristina (sessions 4, 5 and 6; question 1) notes the importance of not being afraid of asking questions, learning from mistakes, brain malleability, and never giving up:

> The first three sessions helped me a lot to clarify certain doubts I had, to feel more secure with the language, to understand that if I ask something, I will not be less than others or they will not make fun of me since it is part of learning a new language. Confusing similar words is normal, and assuming that we are wrong also is; everything, if it is constant, can be learned. Nothing is impossible; just as they said in the Mojo videos, the brain should exercise, and that's why one should never give up.

Also, Patricia (sessions 4, 5 and 6; question 1) shows how the sessions about failure and challenges made her reflect on her own learning process and obstacles:

> They [the sessions] have been helpful. What has really come to me is "do not be afraid of failure," To be honest, I always felt discouraged when I could not achieve things, no matter how many times I tried. Now that I think about it, I always avoided challenges as much as possible. Thanks to these sessions, I have another perspective; I must face any challenge that may be presented to me; I should not be afraid of failure; and above all, I can learn anything if I put my mind to it!

4.5.2.1.4 Code 4: Change of Beliefs After Understanding That Everything is Possible With Effort, Hard Work and Persistence.

Nine students—representing 27% of the average number who answered the questions—mentioned the importance of effort, hard work and persistence in changing their beliefs. These changes were manifested mainly after sessions 4, 5 and 6 and 10, 11 and 12. For example, Sara (sessions 10, 11 and 12; question 4) understood the importance of persistence:

> Yes, after seeing these lessons, I have changed my beliefs about how to learn English. Now I know that I should not get so frustrated by not learning immediately. I must persist in achieving my proposed goals; now, I have the tools to learn the language more easily.

Also, Jessica (sessions 4, 5 and 6; question 4) explained that anyone could learn if they work hard:

> Yes, they have changed. As I said in the first question, it has changed my perspective on many things related to English. I realised that one must put desire and effort into learning a second language. Anyone can learn something new; some will have to put more effort, and others less, but we all have the same opportunity. It depends on each one how to take advantage of it.

4.5.2.1.5 Code 5: Change of Beliefs After Understanding That Failure and Mistakes Are Part of the Learning Process.

Eight participants —representing 23% of the average number who answered the questions—explained how the session related to the value of failure and mistakes impacted on their conceptions:

> Yes, they have changed me, and for the better. I often felt silly because I was not fluent in English and other people were better than me, but I realised that all people who study a new language practice. They'll always make mistakes and get frustrated, but it's part of learning, and okay, you don't have to give up. I like to learn something new. If I need to make a mistake 100 times, I will. (Jessica, sessions 1, 2 and 3; question 4)
>
> Yes, these sessions have been very helpful. They made me see things from another point of view. Before, I had a different perspective on failure. Whenever I failed at something,

> it made me feel like I was a disappointment to my family and myself, but it turned out that failure can be a good thing because if I fail at something, it can always be an improvement from now on[4]. (Emma, sessions 4, 5 and 6, question 1) [original words]

Changes related to the value of mistakes and failure were reported right after the first two sets of sessions, which explained these topics. Students made profound reflections that allowed them to see that mistakes are part of learning and failures can also be part of success.

4.5.2.1.6 Code 6: Change of Beliefs After Understanding That It Is Possible to Learn English in Classrooms in Non-English Speaking Countries.

Five students—representing 14% of the average number who answered the questions—reflected on the misconception that the only way to learn a new language was to travel to English-speaking countries. For instance, Eva (sessions 7, 8 and 9; question 1) responded, "Yes, they [the sessions] have been useful since I know that I do not need to travel or go to another country to learn English that if I have the desire and the effort, I can get to know English perfectly. …" Also, Paula (sessions 7, 8 and 9; question 1) comments on this misbelief and criticises the Chilean education system:

> Yes [my beliefs have changed], since many people tell us that to learn a language well, you must travel abroad, and things like that and one of the reasons is because in Chile it is not taught properly and that is why the number of people who speak it and can understand it is very low and not because in school you have not been taught a good English means that you can never learn it, that age has nothing to do with any of that.

Sessions about language learning beliefs were also helpful in refuting incorrect beliefs and promoting more growth-oriented language mindsets.

4.5.2.2 Theme 2: Some Students Already Had a Growth Language Mindset.

Thirty students explained that the sessions had not changed their thinking as they already had a growth mindset. Nonetheless, a deeper analysis showed that half of them (i.e. fifteen)

[4] Typos in this extract were amended to facilitate the comprehension of the participants' words.

mentioned having changed some of their language learning-related beliefs while learning the contents of the sessions. The sessions were also beneficial for some of those students whose beliefs were strengthened by the contents of the sessions. Also, a detailed examination of these students' answers made it possible to notice which topics or ideas they were already aware of before the sessions. Some students did not give specific reasons, while others described what aspects they were conscious of. Most of these participants explained that they already knew about the importance of effort and perseverance; a few others mentioned varied mindset topics, facts about age-sensitivity beliefs, and the value of failure and mistakes (I will just explain further the most prevalent one). Another interesting finding was that students who showed a growth mindset before the sessions also used growth mindset strategies to face English difficulties from the beginning of the lessons. This corroborates that they knew and applied their growth mindsets in their daily lives and the answers are in line with the results obtained in LMI Q1. Figure 8 shows that in LMI Q1, taken before the sessions, students' language mindset scores varied between 3 and 5 points, which shows that some students were already growth mindset oriented.

4.5.2.2.1 Code 1: The Sessions Helped to Strengthen Existing Growth Mindsets.

Eleven students (37% of the students who mentioned not changing their beliefs) expressed that they knew some of the contents of the sessions; however, they found them useful to confirm what they believed was correct. These beliefs were strengthened in all the sessions, and some of the topics mentioned as being reinforcing included the importance of mistakes, effort, challenges, brain malleability; the value of failure and not being afraid of asking questions; and age-sensitivity beliefs.

The sessions were successful in assisting students with ensuring what they believed was correct. Victoria (sessions 10, 11 and 12; question 4) explained:

> I've never had beliefs about someone not being able to learn or do something. Even if someone gets complicated, it doesn't mean they can't, or it's impossible. But it strengthens the beliefs I had before, such as if I thought that learning English is ageless now I think about it, and it even motivates me to help other people who think that way or just help learn the language.

Also, the sessions were helpful for Samuel (sessions 1, 2 and 3; question 4), who explained that sometimes he forgot about the importance of asking questions:

> Rather than changing my beliefs, the sessions reminded me of them. Because over time, you usually demand more and more of yourself, which makes the fears of getting things wrong and the fear of asking, thinking that other people might make fun of you for not knowing something you should know. The videos were of vital help to remind me that these fears are normal, "things happen" (Making mistakes is right).[5]

María (sessions 1, 2 and 3; question 4) reflected on the importance of not giving up what brought back her hope of learning English:

> Rather than change, I would call to intensify. I have always considered that learning a new language [in this case, English] is a job and goal that anyone can achieve if there is a real commitment. So often, I have been frustrated for not getting the results I would like, and I have stopped trying; with these sessions, let's say that I have felt again emotion and desire to improve my handling of this language and that by applying effort, I can achieve it.

The sessions were useful in helping students confirm with scientific proof and real examples that anyone can learn a new language. The extracts show how students could prove their beliefs were correct, reflect on their actions and regain their enthusiasm for studying English.

[5] Inverted commas and parentheses were included in the participant's answer.

4.5.2.2.2 Code 2: I Already Knew We Can All Learn English.

Mark (sessions 1, 2 and 3; question 4) was one of the sixteen students who admitted that the sessions had not changed his view as he already knew that anyone could learn a new language: "Well, they haven't really changed because I already know that everyone is capable of learning a second language if they really want to, and if they give the time to it." [original words]. Olivia (sessions 4, 5 and 6; question 4) also explained she already understood this and also recognised that the material could be useful for people who possessed other beliefs:

> Not really [my beliefs have not changed] because I never thought about this in any way. I did not think learning was impossible, and I did not think that you can learn anything you want either, and my beliefs are just the same as before. I think it depends on the person, the environment, etc. Anyhow, I think the videos can be helpful for a lot of people who can do things but think they can not. [original words]

4.5.2.2.3 Code 3: I Already Knew the Importance of Effort and Perseverance.

As I mentioned before, effort and perseverance were the most frequently named topics to explain why or how it is possible to learn a new language. This was mentioned by twelve participants (40% of the participants who were growth mindset oriented before the sessions). For instance, Benjamin (sessions 4, 5 and 6; question 4) said, "Not really [my beliefs have not changed], since I have always thought that if you make an effort to do something, you will succeed or will achieve it, the key to everything is to have perseverance." [original words] Sophia (sessions 4, 5 and 6; question 4) also considered that learning new languages depends on effort, willingness and patience:

> I still think that with effort, one can manage to learn the language very well…The result depends on oneself because if you have the willingness and patience, you can even learn a third language in some not too distant future.

4.5.2.2.4 Code 4: English Difficulties Are Faced With a Growth Mindset Solution.

When students were asked what difficulties they encountered while learning English, thirty students showed in their answers to use some growth mindset strategies to overcome them. Interestingly, students who faced their English difficulties with a growth mindset orientation (e.g. putting effort, asking questions, learning from mistakes) reported this right after the first set of sessions. In fact, more than half of the extracts were found in answers to sessions 1, 2 and 3. A detailed analysis showed that the same students described these growth mindset solutions in the rest of the sessions. This code supports students who were growth mindset oriented before the sessions as they showed to use growth mindset strategies to improve their difficulties. This is in line with the quantitative data (LMI Q1), which showed that some students initially had a growth mindset orientation.

The effort was the students' favourite strategy to improve their English. María (sessions 1, 2 and 3; question 3) explained what she does to learn new words:

> … at the beginning, when I saw everything in English (definitions and videos), I could not understand several words, and when listening to them, I did not retain how to pronounce them properly. What I did was look for the meaning on the internet; sometimes, at the same moment, I watched the videos (looking at how I thought they were written). Or I waited to have the transcript of the video in English, I read and I translated those new words to understand the paragraph better.

Other students used varied growth mindset strategies. For example, Luis (sessions 10, 11 and 12; question 3) uses three different methods: "I ask for support from other people, but before I try to do it myself and as a last option, I use the help of technology." Also, Oscar (sessions 1, 2 and 3; question 3) uses other strategies to overcome his speaking difficulties: "the pronunciation and nervousness of speaking English in front of other people, and how I overcome them talking to friends, watching series movies in English or listening to music."

4.5.2.3 Theme 3: The Sessions Helped Elucidate Some Counterarguments to the Growth Language Mindsets Theory.

There were also three students who did not wholly agree with the growth mindset theory in the dataset. For example, one participant demonstrated some resistance to the hard work and commitment required to learn a language using all the growth mindset recommendations. Also, a couple of students pointed out that people can learn things according to their own capacities and abilities, forgetting about the importance, value and efficacy of effort, hard work and many other topics covered during the sessions to promote growth mindsets.

4.5.2.3.1 Code 1: Unwillingness to Work Hard.

One student, on two occasions, commented that she thought that it was too hard to follow all the recommendations to learn English, having a growth language mindset. For example, Natalia (sessions 7, 8 and 9; question 1) expressed: "Yes [the sessions have been useful]. But it is difficult to comply with everything that is said in the sessions. You have to try little by little." However, in sessions 10, 11 and 12, she shows a positive view of the sessions in question 1: "Yes [the sessions were helpful], every time, I will say the same thing because I have changed my way of thinking about learning English." And to answer question 4: "Yes [my beliefs have changed], because I used to think differently. I found it too difficult, but it's actually much easier than the Spanish language." A possible interpretation is that, in the end, she found the sessions useful to change her mindset; however, she did not refer to her previous thoughts on how difficult it was to follow all the recommendations. This means that she still might find it challenging to manage all the concepts and put them into practice.

4.5.2.3.2 Code 2: We All Have Different Capacities.

A pair of students also mentioned that maybe not anyone could learn a new language as we all have different capacities. For example, Paula (sessions 4, 5 and 6; question 1) valued natural talent over effort:

> Learning something depends a lot on what it is; since we all have different abilities and we can all be good at something, we just need to experiment with ourselves as trying is the only way to check it and not get depressed because we can't do something since everyone shines with their own light.

Nonetheless, she was very positive about the remaining sets of sessions and always found them useful to change her beliefs, as she expressed in sessions 10, 11 and 12:

> Yes [my beliefs have changed], seeing that we all have an opportunity to learn a language is very nice. It gives a lot of hope. This shows that it is never too late when it comes to learning something, so I am very grateful for that.

In the end, she seemed to have changed her mindset as she mentioned that everyone could learn a new language, which is the opposite of her previous view in which she implied that people should explore themselves to find their talents.

Olivia (sessions 4, 5 and 6; question 1) explains that people with mental health related concerns might not learn a new language:

> I do not really know if they have been helpful. Maybe they have somehow but not really, because the videos make you think you can do anything, and I do not agree 100%. That depends on what you want to do and on how you are. There are people who have mental disorders or mental illnesses, and there are lots of things they can not do because their brains do not work as they really should. Yes, they for sure can learn things but not whatever they want.[6] [original words]

Olivia only answered this set of questions, so reviewing changes is impossible.

[6] Typos in this extract were amended to facilitate the comprehension of the participants' words.

These answers show that a few participants were reluctant to believe some of the content of the sessions as some of them caused discrepancies with the information they already had about concepts that might seem contradictory to the growth mindset theory. It is impossible to confirm that students changed their minds with the rest of the sessions as they did not refer to those topics again directly.

4.5.2.4 Conclusion of Qualitative Data.

Substantially the qualitative data has demonstrated that the sessions to facilitate the development of growth language mindsets had the potential to change students' incorrect language learning beliefs and promoted growth language mindsets. Most students expressed having modified their beliefs. Other students reported that they already had a growth mindset; however, the sessions helped them confirm with scientific evidence that those beliefs were correct and encouraged them to continue learning English. Some students also explained that they already had growth mindsets before the sessions, which is in line with the quantitative data, showing that some students were growth mindset oriented before starting the sessions. Fixed language learning mindsets were rarely mentioned, but they were also changed to growth as the sessions explained those topics. A few counterarguments to the growth mindset theory were also expressed; therefore, it might be helpful to update the content and activities in the sessions to develop growth language mindsets.

4.5.3 Conclusion of Quantitative and Qualitative Data

Quantitative and qualitative results are aligned. Both sets of results showed that some students had a growth mindset orientation before the sessions; however, after the sessions, there was a significant improvement, and students became even more growth mindset oriented. Qualitative data showed more details of what exactly made the students change their beliefs and

also depicted that even when students already had growth mindsets, they found them helpful to confirm with scientific evidence that they were right. Even though rarely mentioned, students presented some counterarguments to the growth mindset theory, which point towards a few aspects that can be potentially improved in future research.

4.5.4 Quantitative Data: Prolonged effect

To test the prolonged effect of the sessions, as mentioned in the methodology chapter (section 3.8.2.4), 38 participants answered the LMI Q3 three months after the end of the sessions. As the number of participants decreased on this third occasion from 49 to 38, before showing the results of the difference between LMI Q2 and LMI Q3, I prefer to clarify that there was also a positive and significant difference between questionnaires 1 and 2 with 38 participants as it was with the 49 students described recently. Before running the inferential tests, I checked the three questionnaires' normality, this time with 38 participants. As observed in Table 28, Shapiro-Wilk shows that the data of LMI Q1, Q2 and Q3 were not normally distributed, as $p < .05$ in the three questionnaires. Therefore, the Wilcoxon Signed Ranks Test was chosen again to test the sessions' efficacy right after the sessions by examining LMI Q1 and LMI Q2 and the sessions' long-term effects by analysing LMI Q2 and LMI Q3.

Table 28. Normality Tests for LMI Q1, LMI Q2 and LMI Q3 (n = 38)

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
LMI Q1	.127	38	.125	.922	38	.011
LMI Q2	.213	38	.000	.873	38	.000
LMI Q3	.124	38	.146	.922	38	.012

a. Lilliefors Significance Correction

As just mentioned, the Wilcoxon signed-rank test indicated that the results of the LMI Q2

were significantly higher after the sessions (*Md* = 4.67) compared to the results of questionnaire 1 (*Md* = 4.20), *z* = -4.30, *p* < .001 (see Tables 29 and 30).

Table 29. Descriptive Statistics for LMI Q1 and LMI Q2 (n = 38)

Descriptive Statistics

						Percentiles		
			Std.				50th	
	N	Mean	Deviation	Minimum	Maximum	25th	(Median)	75th
LMI Q1	38	4.2035	0.4757	2.8	5	3.9833	4.2	4.5333
LMI Q2	38	4.5982	0.33763	3.8	5	4.5167	4.6667	4.8667

Table 30. Test Statistics for Wilcoxon Signed Ranks Test for LMI Q2 – LMI Q1 (N = 38)

Test Statistics[a]

	LMI Q2 – LMI Q1_
Z	-4.301[b]
Asymp. Sig. (2-tailed)	.000

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

Another Wilcoxon Signed Ranks Test was performed to evaluate whether the sessions to promote growth mindsets had a prolonged positive effect on the students. The results indicated that there was no significant difference between LMI Q2 and LMI Q3. The results of the LMI Q2 (*Md* = 4.67) were exactly the same as those of the LMI Q3 (*Md* = 4.67), which was taken three months after the sessions, *z* = -1.83, *p* = .068. Tables 31 and 32 summarise this information

Table 31. Descriptive Statistics for LMI Q2 and LMI Q3 (n = 38)

Descriptive Statistics

						Percentiles		
			Std.				50th	
	N	Mean	Deviation	Minimum	Maximum	25th	(Median)	75th
LMI Q2	38	4.5982	0.33763	3.8	5	4.5167	4.6667	4.8667
LMI Q3	38	4.6895	0.25149	3.93	5	4.5833	4.6667	4.8667

Table 32. Test Statistics for Wilcoxon Signed Ranks Test for LMI Q3 – LMI Q2 (n = 38)

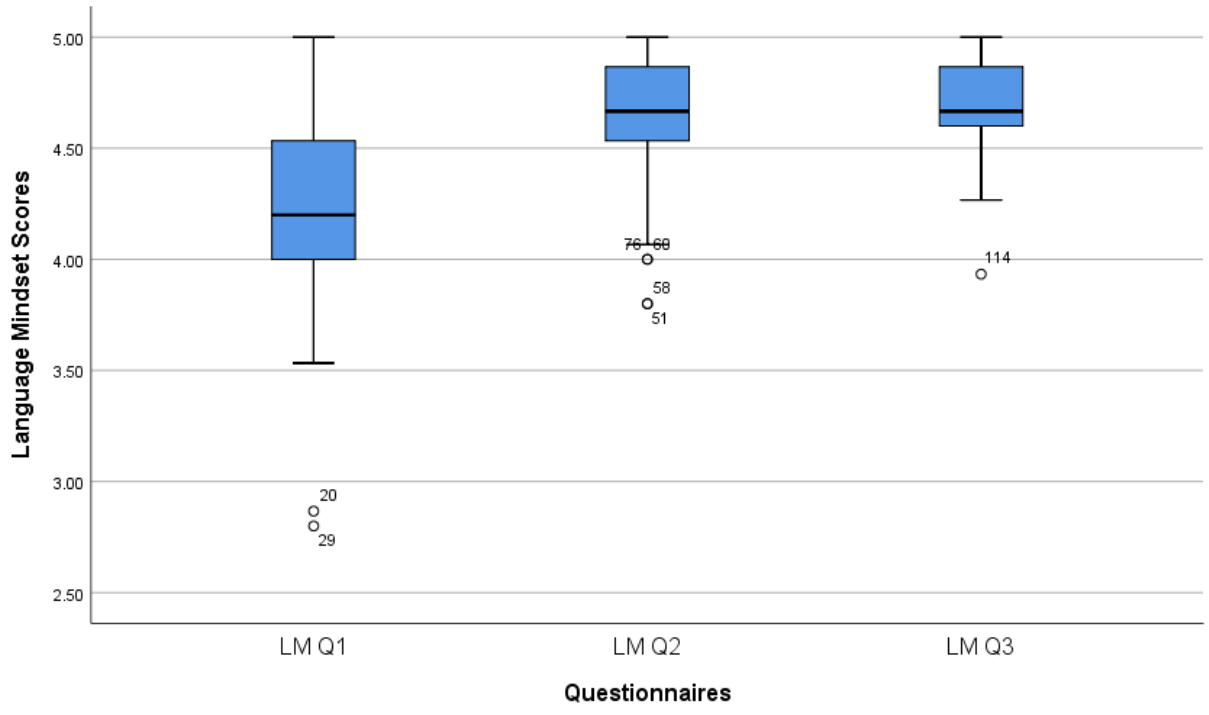
Test Statistics[a]

	LMI Q3 – LMI Q2_
Z	-1.826[b]
Asymp. Sig. (2-tailed)	.068

a. Wilcoxon Signed Ranks Test

Figure 9 depicts the results of the sessions with 38 participants. There is a significant difference between the LMI Q1 and LMI Q2, and it is possible to see that the scores were maintained equally high three months after the sessions.

Figure 9. Boxplots of the scores of LMI Q1, LMI Q2, and LMI Q3 (n = 38)



4.6 RQ 4b: Can Sessions to Promote Growth Language Mindsets Impact on Students' L2 Motivation?

4.6.1 Quantitative Data: Immediate Effect

To answer this question, first of all, a normality test was run for L2MSS Q1 and Q2. Two outliers[7] were excluded from the analysis (which later permitted a normal distribution and the use of a parametric test); therefore, forty-seven students participated in this test. Shapiro-Wilk test showed that both questionnaires' data were normally distributed: in L2MSS Q1, $p = .391$ and in L2MSS Q2, $p = .740$ (see Table 33).

Table 33. Normality Tests for L2MSS Q1 and L2MSS Q2 (n = 47)

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
L2MSS Q1	.101	47	.200*	.975	47	.391
L2MSS Q2	.122	47	.078	.984	47	.740

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

A paired samples t-test can be used to compare two sets of scores obtained from the same participants who are measured more than once (Dörnyei, 2007). This t-test was conducted to see whether the sessions to promote growth language mindsets affected students' L2 motivation. There was a significant difference in the scores for L2MSS Q1 ($M = 3.60$, $SD = .370$) and L2MSS Q2 ($M = 3.69$, $SD = 3.73$) conditions; $t(46) = 2.16$, $p = .036$. These results showed a low

[7] An outlier is a data point that differs significantly from other observations. Another analysis, including these outliers, was also performed. As the data were not normally distributed, a Wilcoxon Signed Rank Test was applied. The results also revealed a statistically significant difference. Thus, parametric and non-parametric tests showed a statistically significant difference between L2MSS Q1 and L2MSS Q2.

but statistically significant improvement in students' motivation after completing the 12 online sessions to develop growth language mindsets in the MoodleX programme (see Tables 34 and 35).

Table 34. Descriptive Statistics for L2MSS Q1 and L2MSS Q2 (n = 47)

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	L2MSS Q2	3.6868	47	.37293	.05440
	L2MSS Q1	3.6064	47	.37048	.05404

Table 35. T-Test for L2MSS Q1 and L2MSS Q2 (n = 47)

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	L2MSS Q2-L2MSS Q1	0.0804	0.2548	0.03717	0.00557	0.15519	2.16	46	0.036

In Figure 10, it is observed that after the sessions, most participants got higher scores on the L2MSS Q2, while some of them decreased their motivation. Also, in Figure 11, the boxplots show how motivation increased in L2MSS Q2, and at the same time, it is possible to see that there are more varied scores in the second measure.

Figure 10. Bar of Score Differences After the Sessions

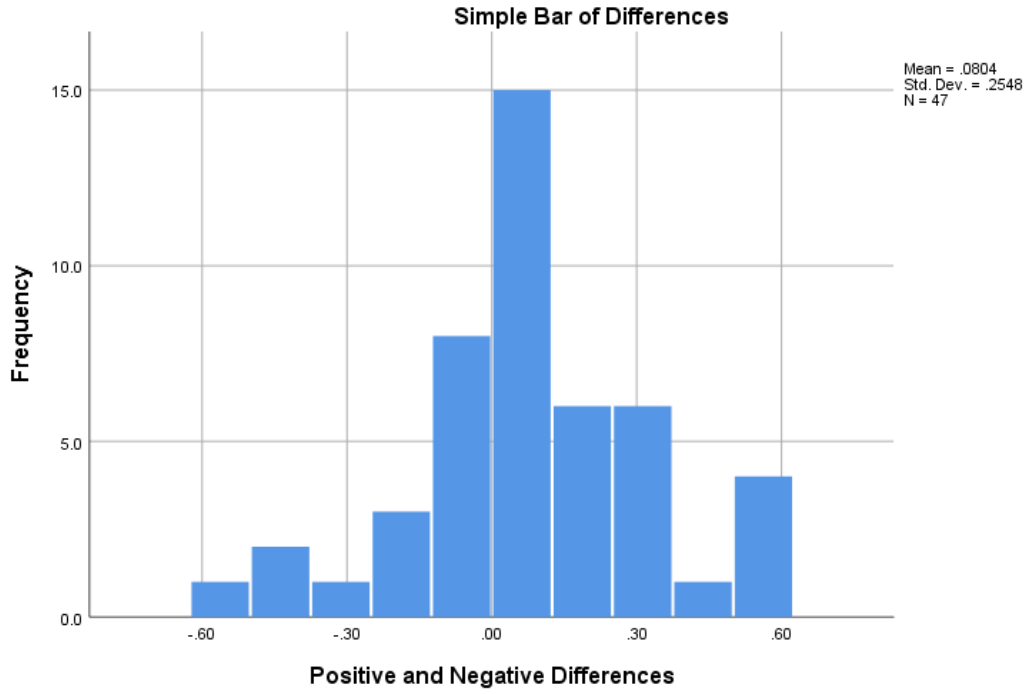
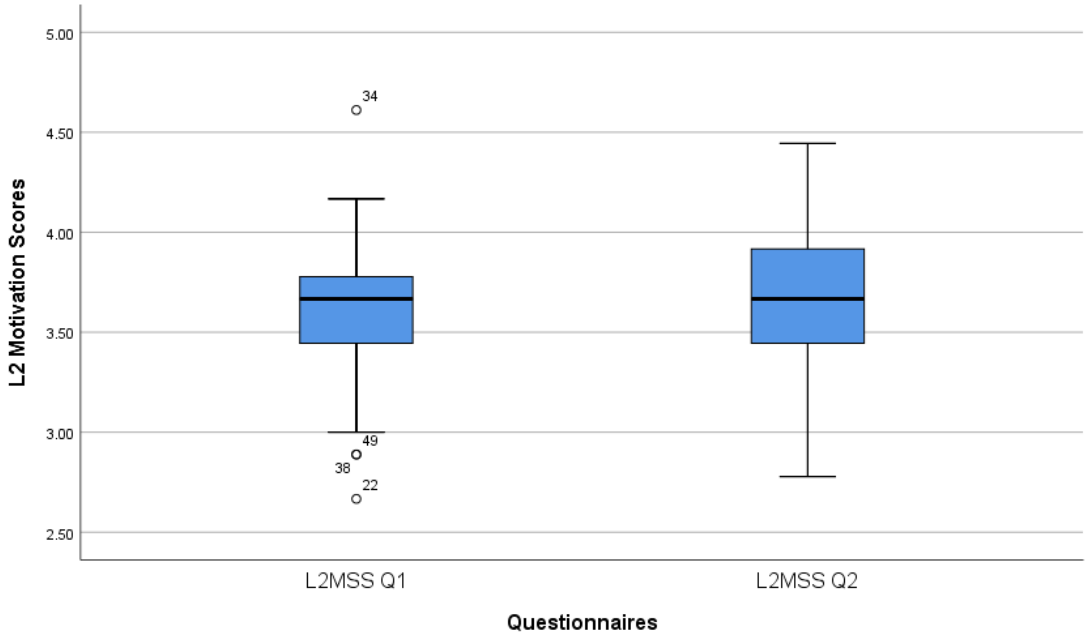


Figure 11. Boxplots of L2MSS Q1 and L2MSS Q2 (n = 47)



4.6.2 Qualitative Data

Students' motivation aimed to be addressed by some of the diary entry questions. Students were not asked directly whether their motivation had changed or increased due to the sessions. Nonetheless, students referred to their motivation when answering what they liked about learning English, whether the sessions had been helpful, and whether they had changed their language learning beliefs. Thanks to the students' answers, first of all, it was possible to identify what motivational aspects drove students' motivation to learn English. Students' L2 motivation reflected aspects of the Ideal L2 self and Attitudes to Learning English from the L2MSS questionnaire, which helps triangulate the information collected in the quantitative data. Apart from identifying what aspects motivate students, the answers also demonstrated that the sessions improved the students' motivation to learn English.

4.6.2.1 Theme 1: The Ideal L2 Self Drives Students' Motivation to Learn English.

4.6.2.1.1 Code 1: English as Giving Hope for Better Future Opportunities, Such as Travel, Study, and Work.

This topic was the most prevailing among all the other codes related to L2 motivation. Throughout all the sessions, a total of seventy-six extracts showed that students' excitement to learn a new language was related to their expectations to travel, study and work in an English-speaking country. Thirty-seven participants referred to these future opportunities. This is a significant number considering that forty-one participants were the maximum number in responding to the diary entry questions (after sessions 4, 5 and 6). These extracts are similar to items 4.2 (I can imagine myself speaking English with international friends or colleagues), 4.4 (I can imagine myself studying in a university where all my courses are taught in English) and 4.5

(I can imagine myself writing English e-mails/letters fluently) from the Ideal L2 self in the L2MSS questionnaire (see appendix D).

For example, María (sessions 10, 11 and 12; question 2) explained how learning English could help her to fulfil her dreams:

> I think that what I mainly like about learning English focuses on the help it can provide me to achieve my goals, either to get opportunities in the future when it comes to studying, working, creating a company of my own or even travelling.

Paula (sessions 1, 2 and 3; question 2) mentioned that learning this language would help her to have a better life:

> … And the most important thing is that it can help me in the future, like get ahead as a person and make my life better. It would be boring to know English and stay in my own country or not be able to travel or do something because my dream is to study or live in another country to make my life there, and if I know English, of course, I wanna use it. [original words]

4.6.2.1.2 Code 2: English as a Means of Building Multicultural Communication in the Future.

The following most popular reason to learn English related to the Ideal L2 self is to build multicultural communication. This code is similar to items 4.2 (I can imagine myself speaking English with international friends or colleagues) and 4.6 (I can imagine myself living abroad and using English effectively for communicating with the locals) from the Ideal L2 self in the L2MSS questionnaire. Fourteen participants mentioned this idea, and twenty extracts were found throughout all the sessions. For example, Mark (sessions 1, 2 and 3; question 2) explained: “I like learning English because I can communicate with more and more people, to know their story and share it with the world” [original words].

Samuel (sessions 10, 11 and 12; question 2) also pointed out that what he liked the most about learning English was to learn it to be able to communicate with individuals from abroad: "[what I like about learning English is to] know that I am learning something that may be useful in the future to connect with people from other countries" [original words].

Also, some students explained that their motives for learning English were related to learning about different cultures. For instance, Alex (sessions 4, 5 and 6; question 2) said: "I also like learning the English language because it facilitates the possibility of meeting more people, being a gateway to other cultures, which will allow me to enrich my knowledge so far acquired."

Emma (sessions 7, 8 and 9; question 2), who acknowledged not being a devotee of the English language, referred to wanting to know new cultures and different accents:

> I really want to travel abroad and be able to know new cultures, so that would be the main reason that I like English. I am not a big fan of it, but I enjoy speaking it and how each country has a little accent when they speak it (United Kingdom, Australia, United States). [original words]

4.6.2.1.3 Code 3: English Improvement for Future Entertainment Purposes.

This code is similar to items 4.1 (If my dreams come true, I will use English effectively in the future), 4.2 (I can imagine myself speaking English with international friends or colleagues) and 4.5 (I can imagine myself writing English e-mails/letters fluently) in the L2MSS questionnaire. Eight students (23% of participants, considering that thirty-five students on average answered to the diary entry questions) mentioned their desire to improve their English to be able to understand and sing their favourite songs, watch movies without Spanish subtitles and be able to listen to the actors' real voices and read books in the target language. This is reflected in Amelia's words (sessions 1, 2 and 3; question 2), who said:

> What I like most about learning English is that if I keep doing it, in the future, I will be able to see series, anime, and movies without subtitles. Sometimes, an anime or movie is only translated into English and not Spanish, like some books that just come out and are only in English. I say, "I do not understand much English; I'll just wait 2 years for them to be translated into Spanish", and I'm a big fan of reading. I feel bad when I can't read a book when they just released it because it's only in English (...). The other thing is to be able to sing in English and not invoke any demon when I sing, and the most important thing is because I like and love English; it is a very great language. I would like to learn it and teach it to my children if I have them.

4.6.2.2 Theme 2: Attitudes to Learning English Drive Students' Motivation to Learn English.

Ninety-seven extracts were associated with this theme. This was one of the most popular and the most varied theme, as six different codes were labelled. Some codes were somehow related to the items in the L2MSS questionnaire, especially to items 6.1 (Learning English is really great) and 6.4 (I find learning English really interesting). The items in the L2MSS questionnaire showed very general ideas (i.e. great, interesting). However, in the diary entry answers, students discussed in more detail why they loved their English learning experiences, demonstrating the richness of qualitative data. All these codes occurred throughout all the sessions.

4.6.2.2.1 Code 1: Realising English Language Improvement.

The most prominent code was related to the students' language development awareness. Twenty-seven students (77% of participants considering that thirty-five was the average number of participants who answered the diary entry questions) expressed they liked to learn English because it helped them in their performance and understanding of the language. For example, Alina (sessions 4, 5 and 6; question 2) explained:

> I like to learn English because I like to sing and most of the music I listen to is in English. So, I like to understand the lyrics of the songs and be able to pronounce well everything the songs say when I sing them.

Amelia (sessions 4, 5 and 6; question 2) also expressed her joy for improving every day and being able to understand the English language through different media:

> What I like about learning English is that one understands. I understand not only 100 words, but every day, I understand more and more. And I also like it because I understand songs, series and books in English better.

4.6.2.2.2 Code 2: English is a Beautiful Language.

Also, fifteen students (42% of the average number of participants who responded to the questions) admitted that they liked learning English because they thought it was a beautiful language. To describe the beauty of this language, many students referred to the pronunciation, such as Nicolas (sessions 1, 2 and 3; question 2), who said: "I like to learn English, which is a very nice language since the pronunciations are very detailed, and that makes it beautiful." Also, other students mentioned that they could express themselves better in English as the language allows them to express their sentiments more appropriately. For instance, Lucas (sessions 4, 5 and 6; question 2) said:

> I like to talk. More than anything, I like the sound, the pronunciation. I like the form to express. It's like a stronger feeling. It's deep. I can express my feelings easier in English than in Spanish. I don't know why but I like it so much [original words].[8]

4.6.2.2.3 Code 3: English is a Useful International Language.

Eleven students said they liked English because it was a useful language. Helen (sessions 1, 2 and 3; question 2) said:

[8] Typos in this extract were amended to facilitate the comprehension of the participants' words.

> I think that learning English it's so helpful because it is the most used language around the world and it can help to communicate with other people, it gives the opportunity to so many people who want to travel and get a job [original words.]

Laura (sessions 1, 2 and 3; question 2) also referred to the fact that it can be used in many parts of the world:

> … it is very practical since this is one of the most well-known and spoken languages. In addition to being one of the most used for all kinds of places, generally where there is great multiculturalism or tourist areas (even when those countries do not have English as an official language).

4.6.2.2.4 Code 4: I Like the Challenge of Learning English.

Also, five participants (14% of the average number of participants who answered the diary entry questions) explained that one of the main reasons they liked English was that it was challenging for them. Ten extracts throughout all the sessions referred to this topic. For example, Victoria (sessions 4, 5 and 6; question 2) said:

> There are many reasons why I like to learn English, and I think if I said all of them, I would never finish. But mainly I like it because you can get out of the ordinary and give more "challenges" to yourself since sometimes I feel that it is somehow boring to keep only with what you are taught.

Gabriel (sessions 1, 2 and 3; question 2) also expressed the gratification he felt when he could see his English improvement when trying complicated things: "I like it because it is something challenging that at the time of testing it, like when trying to read something in English and understand it, leaves an immense feeling of satisfaction and happiness."

4.6.2.2.5 Code 5: Communicating With Others in English.

Eight students (23% of the average number of participants who responded to the diary entry questions) said they liked learning English to communicate with people in English. For example, Alexander (sessions 10, 11 and 12; question 2) explained that he could establish contact with people from other countries to play games: "I like English because I like to play and

interact with people from other countries through English, so we facilitate the understanding to play." Also, it was amusing for other students to talk in the target language with their classmates and friends, such as Oscar (sessions 1, 2 and 3; question 2): "I like learning English because it is fun to talk with my friends."

4.6.2.2.6 Code 6: Varied Methods to Learn English.

Five students (equivalent to 14% of the average number of participants who answered the diary entry questions) mentioned that they liked learning English because there are varied methods to learn it. For example, Carlos (sessions 1, 2 and 3; question 2) explained: "I like to see that as in the Spanish language there are different 'alternatives' to learn, for example: listening to it, reading it, trying to talk about it also watching videos. …" Also, Mateo (sessions 1, 2 and 3; question 2) said, "… But I think what I like most about learning English is that it is a job that entertains you. Regardless of the subject, you can learn English in such varied ways that there are no limits."

4.6.2.3 Theme 3: The Sessions Helped Increase Students' L2 Motivation.

In the data, it is possible to observe that students' motivation was triggered by their Ideal selves and Attitudes to learning English. Students were not asked directly whether the sessions had influenced or changed their motivation to study English (as it was explicitly asked for language mindset changes). Nonetheless, while being asked about the helpfulness of the sessions, what they liked about learning English and whether their language mindsets had changed after the sessions, some of them freely took the opportunity to explain how the sessions helped increase their motivation to learn English.

In the MoodleX sessions, students participated in classes that intended to promote growth language mindsets. Some students referred to these sessions to describe positive language

learning experiences and increased motivation to learn English. These codes were in some way connected to items 6.2 (I really enjoy learning English) and 6.5 (I like the atmosphere of my English classes) in the L2MSS questionnaire.

4.6.2.3.1 Code 1: The Sessions Included Helpful and Enjoyable Content and Activities.

Seventeen students mainly expressed that the sessions were useful and entertaining in the first two sets of sessions (from 1 to 6). This shows that their motivation related to Attitudes to learning English increased due to these online sessions. These participants represent 43% of the students, as an average of forty participants answered the questions between sessions 1 and 6. Some students reported having learned new words in a fun way. For example, Lucía (sessions 4, 5 and 6; question 1) said:

> Yes, I have acquired new knowledge in a fun and easy way to understand. I am used to learning new words through texts or in series, but the videos that have been included in the sessions are short and accurate, thus making it something easy to keep in mind in our day-to-day.

Other students reported having improved their vocabulary and spelling while observing engaging videos, such as Angelina (sessions 1, 2 and 3; question 1), who said:

> Yes, because I did not know many of the words used in the videos, so I learned new things. I was able to enrich my vocabulary and improve my spelling in terms of writing in English. Also, the theme of the videos was very interesting, entertaining and educational, making me see them attentively and without problems.

Also, some of them improved their listening skills by watching the diverting videos. For example, Abigail (sessions 1, 2 and 3; question 1) said:

> I really liked the sessions, they are didactic, and they are not boring. I learned new words and their definitions. It is also very fun to listen to the monster videos, these have helped me to familiarize my ear with the language and understand it a little more. [original words]

4.6.2.3.2 Code 2: The Sessions Included Motivating Activities.

Eight students (representing 23% of the participants, considering the average number of participants who answered the questions) explained that the sessions (mainly sessions 4, 5 and 6) included motivating activities, which is similar to item 6.5 (I like the atmosphere of my English classes) in the L2MSS questionnaire. Natalia (sessions 4, 5 and 6; question 1) said, "yes, they have been helpful to me because the texts are motivating and make one want to achieve everything that is proposed …" Angelina (sessions 4, 5 and 6; question 1) also said, "… In addition, I liked the texts; their theme was very motivating. The one that had as its central message 'not to give up' manages to be helpful for the students; therefore, it was for me."

Also, five extracts referred to the fact that the sessions had been helpful in the context of the COVID-19 situation. Mark (sessions 1, 2 and 3; question 1) argued, "… they motivated me to do my homework since I've been feeling pretty down lately" [original words.] Paula (sessions 1, 2 and 3; question 1) also explained how the sessions motivated her to continue learning despite the pandemic:

> Yes , I think that all students need this Motivation because right now, in quarantine, we all are demotivated and frustrated. It's hard to learn things by ourselves and don't understand anything because for our entire life, we used to have someone to teach us and available to ask face to face, so right now, we need to find a way to not get demotivated, feel dumb, sad or whatever and keep trying until we get it and feel good about it [original words.)

4.6.2.3.3 Code 3: The Sessions Increased Students' Language Learning Motivation.

Regardless of whether the sessions helped to facilitate growth language mindsets or not (as some students were already growth mindset oriented), the sessions boosted thirteen students' motivation to learn languages (this represents 37% of the average number of participants who

answered the questions). For example, five students explained that they already had a growth mindset, but the sessions helped them increase their L2 motivation. Five students might seem like a low number of participants. However, it is important to highlight that they represent 38% of the total number of students who mentioned that their language learning motivation improved and 33% of the fifteen students who explained that their language learning beliefs had not changed as they already knew that information. This means that 1/3 of the students who already had growth mindsets reported that their motivation increased due to the sessions. Abigail (sessions 1, 2 and 3; question 4) reported, "my mind has always been open regarding learning a new language, and with the support of this intervention, I feel more interested in learning English …" [original words]

Similarly, Angelina also explains that even though she already had a growth mindset, her motivation rose (sessions 1, 2 and 3; question 4):

> No [my beliefs have not changed], because knowledge can always be increased. It only takes time, dedication, tools and desire to learn. These sessions motivate me much more to learn English, and I think it is something I can achieve if I really dedicate myself to it. This represents for me a great challenge that I intend to finish successfully.

Also, eight students (23% of the average number of participants who responded to the questions) mentioned that the sessions motivated them to learn both a second and a third language (L3). For example, Sara (sessions 10, 11 and 12; question 1) explained she was glad to participate in the sessions as they helped her to increase her ambition to learn languages:

> Yes! they have been quite useful. I am very happy to have received these sessions, now I feel very motivated, and with new tools to learn English or take these same to learn another language, I know that I can fail in the attempt, but I can try again without giving up, and I know that I will be able to master the language.

Paula (sessions 7, 8 and 9; question 2) explained what she liked about learning English: "That if I am able to learn English, I will also be able to learn the languages I want in due course." Also, Gabriel explained that the sessions changed his mindset and motivation to learn perhaps more than a second language: "Yes, all these sessions have made me change my beliefs; now, I think I can learn a second language, or maybe a third or more." Finally, Lucas (sessions 1, 2 and 3; question 4) explained very well how the sessions had not changed his beliefs, but they did change his L3 motivation:

> They haven't really changed as I'm pretty open to learning new languages, and I genuinely enjoy it. I share the beliefs that I've been taught with the ones I already think of when learning English, so no, my beliefs have remained pretty much the same. Although I have to admit that some time ago I tried to learn German but gave up as it was very hard to learn, I should apply these beliefs to that. [original words]

4.6.2.3.4 Code 4: Sessions Changed the Type of English Motivation: From Obligations and Responsibilities to Fulfil own dreams.

As I have mentioned previously, students in this sample want to learn English either because it will be helpful for their future or because they enjoy some English learning experiences. However, there were three occasions (all in the first set of the diary entry answers) in which students expressed that they wanted to learn English because it seemed an obligation. Also, it is essential to highlight that these extracts are not related to the Ought-to L2 self items in the L2MSS questionnaire, as all those items showed a sense of obligation to please other people, such as friends and parents (see appendix D).

For one of the students, it was possible to change her L2 motivation right after the first three sets of sessions. Ana (sessions 1, 2 and 3; question 4) reflected on how the sessions changed her beliefs and purpose in learning English:

> Yes [my beliefs have changed]. Before, I believed that I could not learn since I thought I was not qualified to learn, making it more difficult for me to understand and practice this language. In addition, before, I only saw it [English] as a subject in school, now I want to learn English not only because of the school but also because I want to know more to travel, learn, and know other cultures.

The other two students who perceived English as an obligation changed their minds after learning more contents of the sessions. Emma (sessions 1, 2 and 3; question 2) explained:

> It's not like I am an English fan, but if I have to write about what I like, it would possibly be that English is an international language, which means I must learn it and deepen it if I have the desire to be able to travel and study outside my country. …

Alicia (sessions 1, 2 and 3; question 2) also added: "Well, I am not passionate about learning English, but I feel that it is something very necessary nowadays. I would also like to travel when I am older, so it is necessary for my future."

In both extracts, students mentioned that this necessity or obligation would be helpful "if" they travelled. However, as the sessions continued, their motivation changed. For example, after sessions 7, 8 and 9, Emma expressed that the main reason for learning English was to know new cultures. After sessions 10, 11 and 12, she said she liked learning English because she could expand her social circle, which would also help her in the future when looking for a job. In the same way, after the last set of sessions, Alicia did not refer to learning English as an obligation: "Well, I've always found it [English] to be something great, and I want to travel to many places, but I wouldn't like to depend on someone in English, so I want to learn it."

4.6.2.4 Theme 4: The Sessions Were Helpful Beyond L2 Motivation.

4.6.2.4.1 Code 1: The Sessions Facilitated English Development.

For twenty-three students (66% of the average number of students who answered the questions), the sessions were not only useful for the topics but also emphasised that the sessions

helped them in their English development. For example, eight students mentioned that the sessions gave them opportunities to practice the English language. The sessions contained lots of videos and some reading material; therefore, they had opportunities to practice receptive skills. This was highlighted by some of the participants, such as Alex (sessions 1, 2 and 3; question 1):

> Yes, they have been useful to me. For the moment, I already knew several of the topics addressed in the sessions; however, I think they are very useful for learning to listen and understand the language. Generally, the English that we are taught in school is reading handouts, reading comprehension and grammatical rules. I feel that it is more learning to write than understanding and/or listening. In that sense, the sessions contribute to listening comprehension of the language.

Similarly, six other students found that the sessions offered them opportunities to strengthen their knowledge. For example, Rose (sessions 1, 2 and 3; question 1) stated: "Yes, I must admit that there were words I did not remember, and I remembered them again in these sections."

Another interesting finding was that twenty-three participants (74% of the students who provided feedback about the last three sessions) expressed that the last set of sessions provided useful language learning strategies to improve their English. Gabriel (sessions 10, 11, 12; question 1) admitted: "The truth is [the sessions have been helpful] quite a lot since they taught how to develop skills that are very important to learn English and that would have been difficult to find elsewhere." Alina (sessions 10, 11 and 12; question 1) also explained that these sessions were key to helping her develop the target language:

> Yes, they were useful to me since they taught me many helpful strategies to study and learn things better. For me, all the sessions have been very useful, but I think that these last three have been the ones that have helped me the most to improve in my learning of this language.

Finally, twenty-six students (76% of the average number of participants who responded to the diary entry questions) found the sessions helpful in improving their English skills.

Throughout all the sessions, students mentioned having enhanced different aspects, such as vocabulary and listening comprehension, as Sophia (sessions 4, 5 and 6; question 1) explained:

> Yes, because I understand better what I hear, thanks to the videos. The activities help me to understand the different words that I forget regularly. I also like the way questions are asked because they are easy to understand and answer. Thanks to this, I understand a little more of the words in English that I find in the things I see on the internet.

In the last set of sessions, six students also felt that their English had improved and also felt more confident when using the language after completing the twelve sessions in MoodleX. This can be reflected in Carlos's words (sessions 10, 11 and 12; question 1):

> Yes [the sessions have been helpful]. They have been useful to me since, thanks to these three sessions, they have helped me to understand and practice the language. I have also realised that throughout this entire learning period, I have developed my ability with the second language. I am grateful this helps me to follow my dream and take it to another level which is to write songs.

4.6.2.4.2 Code 2: The Sessions Helped Students to Become More Autonomous Learners.

In the last two sets of sessions, ten students (representing 32% of the students, considering that 31 participants answered the last set of questions) mentioned that the online sessions helped them to develop their autonomy. For example, Alina expressed after sessions 7, 8 and 9 that the sessions motivated her to study by herself (question 1):

> Yes, it encouraged me to put more effort into it and work harder when I study English. It motivated me to keep going and every day to study or review a little to improve my knowledge of English and learn new things to be able to continue progressing in learning this language!!

Also, at the end of the last three sessions (10, 11 and 12), Lucía expressed how her study habits changed (question 4):

> I started to take habits like speaking English at a certain time of the day, talking with my friends in English and in general, carefully observing the lyrics of the songs I listen to, as well as with the series. Before, I stayed with the translations, but I noticed that it was much better to adapt than to translate.

Also, some students explained how learning strategies to improve their language learning skills helped them to reflect and identify their weaknesses and what new ideas they could start implementing to study by themselves.

4.6.2.5 Conclusion of Qualitative Data.

Language learning motivation was investigated implicitly by asking participants, for example, if they considered the sessions useful or what they liked about learning English. Perhaps for that reason, on some occasions, it is unclear whether students' motivation increased with the sessions or whether they were interested in the subject before the sessions. Many extracts demonstrated that students' encouragement to learning languages was related with the Ideal L2 self and Attitudes to learning English in the L2MSS questionnaire. Although this finding does not help answer this research question directly, it helps to show that the qualitative results are aligned with the quantitative ones (see Table 20). Besides, the results in the L2MSS Q1 showed that students were generally motivated to learn English (Ideal L2 self and Attitudes to learning English). Thus, it can be inferred that these students had high motivation before the sessions (i.e. when they did not mention the sessions as the source of their motivation). Nonetheless, on many occasions, students mentioned exactly that their motivation was maximised due to the sessions. The sessions not only increased the students' motivation. The participants also expressed that the sessions had been helpful for their English development and, in some cases, helped the students to become more autonomous learners.

4.6.3 Conclusion of Quantitative and Qualitative Data

Quantitative and qualitative analysis showed that the sessions to promote growth language mindsets increased students' motivation to learn English. In the qualitative analysis, it was possible to observe that students mentioned varied reasons that motivated them to learn English, many more than the items in the L2MSS questionnaire. Therefore, it can be inferred that the questionnaire's results might have reflected less of what students actually desired. The number of extracts related to items in the L2MSS Q was associated with the results obtained in the quantitative analysis of the L2MSS Q1, which showed that students' motivation was not related to a sense of obligation or responsibility to other people, such as parents or friends. Instead, the participants were motivated by the Ideal L2 self and Attitudes to learning English.

4.6.4 Quantitative Data: Prolonged Effect

The present study also aimed to investigate whether the sessions to promote growth mindsets could have a prolonged effect on students' L2 motivation. Therefore, I analysed whether the results of the L2MSS Q3, which was taken three months after the sessions, changed or remained stable and whether this was statistically significant. To run an adequate statistical test, I first checked the data distribution of L2MSS Q1, Q2 and Q3 with thirty-seven participants (one outlier[9] was excluded from this analysis, which allowed the use of a parametric test). The Shapiro-Wilk test was conducted and showed that the distribution of the three questionnaires' data was normal (p = .557 in L2MSS Q1, p = .762 in L2MSS Q2, and p = .558 in L2MSS Q3; see Table 36).

[9] A Wilcoxon Signed Rank Test, including this outlier, was also performed. The results showed a statistically significant difference. Therefore, parametric and non-parametric tests obtained the same results.

Table 36. Normality Tests for L2MSS Q1, Q2, and Q3 (n = 37)

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
L2MSS Q1	.111	37	.200*	.975	37	.557
L2MSS Q2	.143	37	.055	.981	37	.762
L2MSS Q3_	.115	37	.200*	.975	37	.558

*. This is a lower bound of the true significance. a. Lilliefors Significance Correction

As data were normally distributed, I used a paired-sample t-test to see whether the sessions to promote growth language mindsets had a prolonged effect on students' L2 motivation by comparing the results of L2MSS Q2 and Q3. As questionnaire number 3 was answered by fewer participants, I also checked whether there was a statistically significant difference between L2MSS Q1 and 2. The results showed that there was also a significant difference in the scores for L2MSS Q1 (M = 3.61, SD = .371) and L2MSS Q2 (M = 3.69, SD = 3.75) conditions; $t(36)$ = 2.13, p = .04. Similarly to what happened between L2MSS Q1 and Q2 with 47 participants, these results showed a low but significant improvement in students' motivation after completing the 12 online sessions to develop growth language mindsets in MoodleX.

However, there was a slight decrease in the scores between questionnaires 2 and 3: L2MSS Q2 (M = 3.69, SD = .375) and L2MSS Q3 (M = 3.66, SD = 3.74) conditions; $t(36)$ = -0.86, p = .40. As this difference was not significant, I checked whether the scores' difference between L2MSS Q1 and L2MSS Q3 was significant. Results showed that even though the results of L2MSS Q3 were higher than the scores in L2MSS Q1, these did not have a statistically significant difference: L2MSS Q1 (M = 3.61, SD = .371) and L2MSS Q3 (M = 3.66, SD = 3.74) conditions; $t(36)$ = 1.12, p = .27.

Therefore, these results suggest that the sessions to promote growth mindsets effectively raised students' L2 motivation while they lasted; however, this motivation got lower again three months after the end of the sessions (see Tables 37 and 38).

Table 37. Descriptive Statistics for L2MSS Questionnaires 1, 2 and 3 (n = 37). T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	L2MSS Q2	3.6937	37	.37534	.06171
	L2MSS Q1	3.6111	37	.37130	.06104
Pair 2	L2MSS Q3	3.6607	37	.37492	.06164
	L2MSS Q2	3.6937	37	.37534	.06171
Pair 3	L2MSS Q3_	3.6607	37	.37492	.06164
	L2MSS Q1_	3.6111	37	.37130	.06104

Table 38. T-Test for L2MSS Questionnaires 1, 2 and 3 (n = 37)

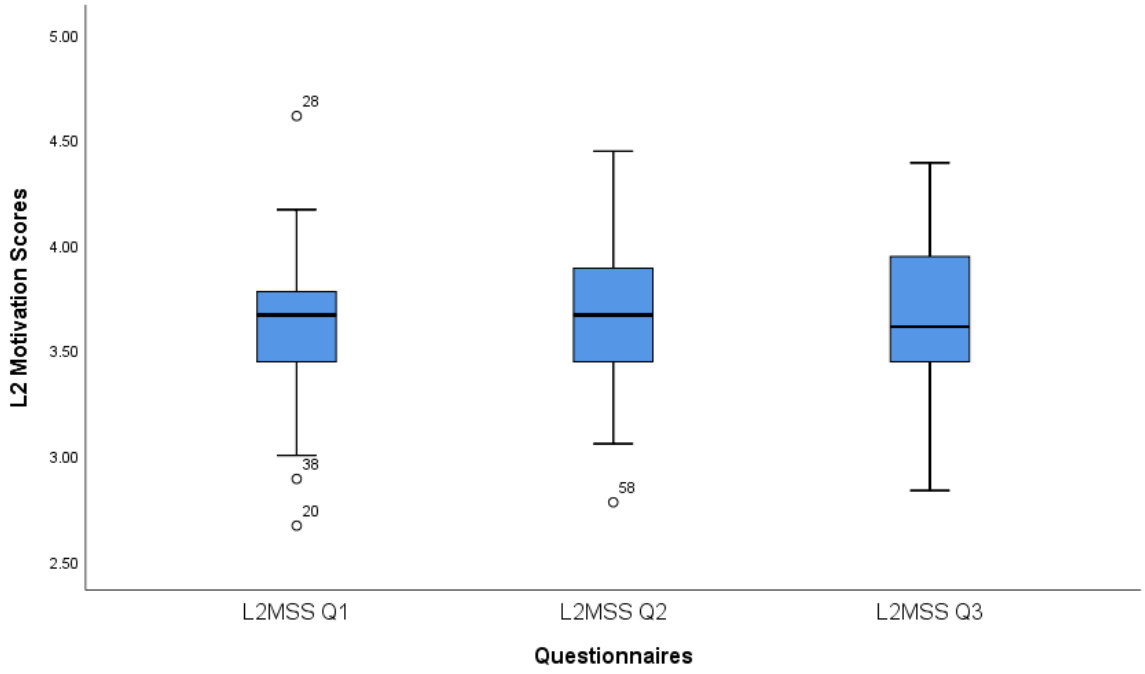
Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	Q2-Q1	0.08258	0.23556	0.03873	0.00404	0.16112	2.132	36	0.04
Pair 2	Q3-Q2	-0.0330	0.23404	0.03848	-0.1111	0.045	-0.859	36	0.396
Pair 3	Q3-Q1	0.04955	0.26988	0.04437	-0.0404	0.13953	1.117	36	0.271

Figure 12 illustrates the participants' (n = 37) scores in L2MSS Questionnaires 1, 2 and 3. It is clearly shown how the scores increased immediately after the sessions and slightly

decreased three months after. It is also clear that the participants' L2 motivation scores varied the most in the second and last measures.

Figure 12. Boxplots of L2MSS Questionnaires 1, 2 and 3 (n = 37)



4.7 RQ 5: Can Growth Mindset Oriented Online Lessons Impact Students' Academic Achievement?

4.7.1 Quantitative Data

Participants took a pre-English test, then they received 24 online English lessons, which were growth mindset oriented, and next, they took a post-English test. I first analysed the normality of the tests' data distribution to know whether growth mindset oriented lessons impacted achievement. Seven participants did all the activities mentioned earlier; therefore, Shapiro-Wilk Test, the most powerful test for small sample sizes, was conducted. According to this test, both test data were normally distributed. In the pre-test, p = .250 and in the post-test, p = .660 (see Table 39).

Table 39. Normality Tests for Pre-and-Post-tests

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-Test	.275	7	.118	.885	7	.250
Post-Test	.148	7	.200*	.942	7	.660

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

As data were normally distributed, I proceeded with a paired-sample t-test to see whether the English classes, which promoted growth language mindsets, affected students' achievement. The results showed that there was a positive and significant difference between the scores of the pre-test (M = 73.57, SD = 10.15) and the post-test (M = 85.57, SD = 7.64) conditions; $t(6) = 4.6$, $p = .004$.

Table 40: Descriptive Statistics for Pre-and-Post-English Tests

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post-English Test	85.57	7	7.635	2.886
	Pre-English Test	73.57	7	10.147	3.835

Table 41. T-Test for Pre-and-Post-English Tests

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Post-T-Pre-T	12	6.88	2.6	5.637	18.363	4.6	6	0.004

Figure 13 graphically shows that all participants got a positive difference between the pre-and post-English tests after taking the English classes. This is also visible in Figure 14,

where it is observed that scores are higher in the second measure and also the scores are more concentrated than in the pre-test, which means students got higher and pretty similar scores.

Figure 13. Differences Between Pre-and-Post- English Tests

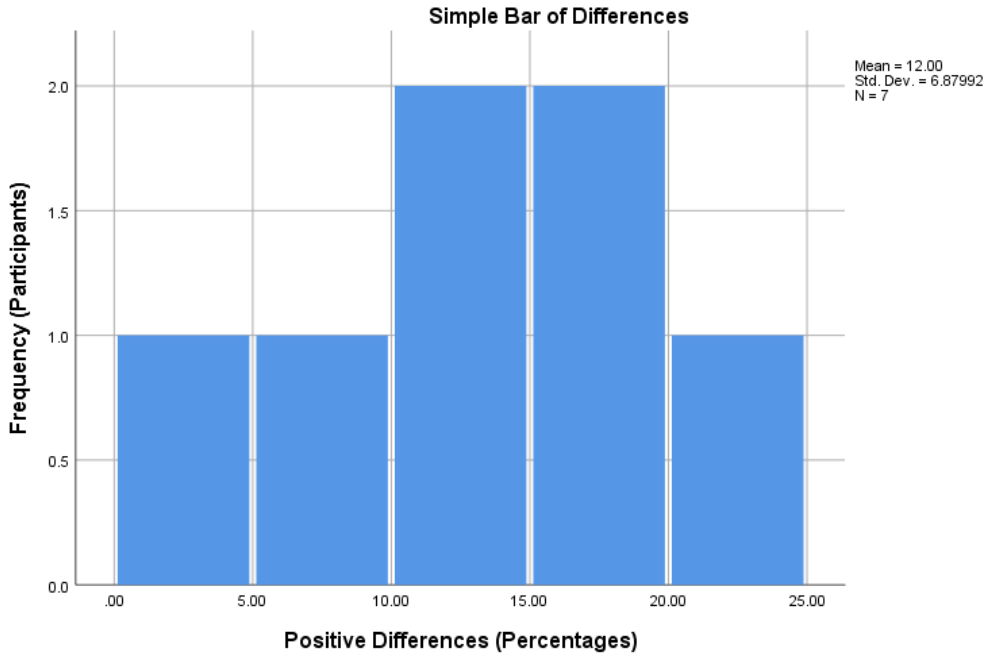
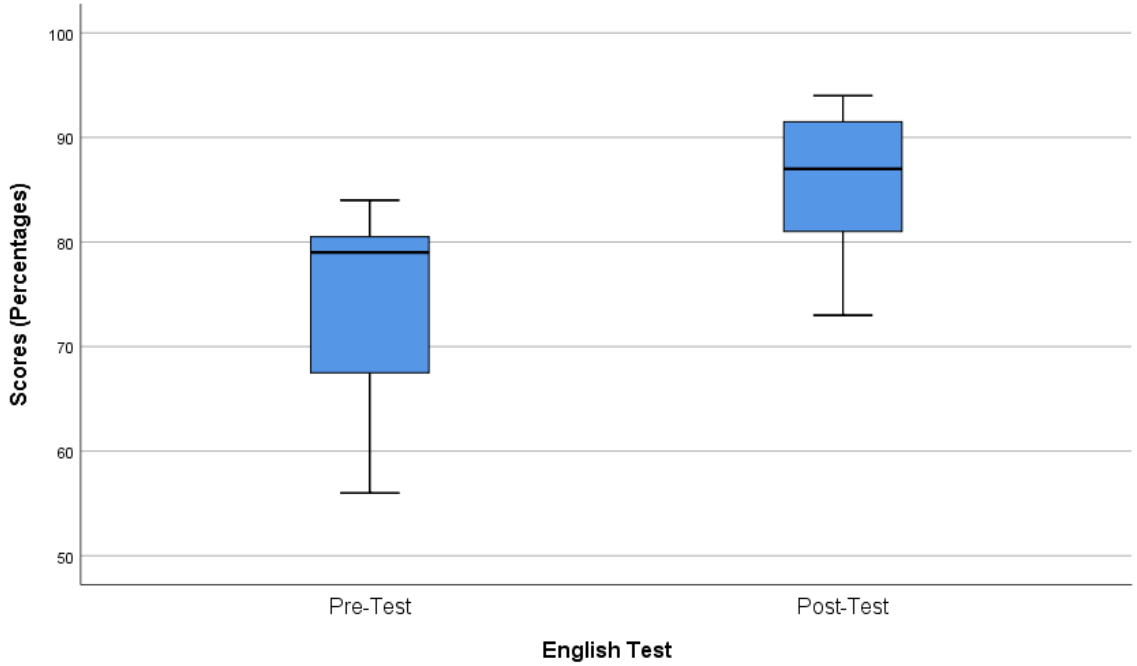


Figure 14. Boxplots of Pre-and-Post-English Tests



I also verified whether the growth mindset oriented lessons could change all the English abilities evaluated. To apply a proper inferential test, I checked the distribution of each pre-and post-test. Shapiro-Wilk test showed that pre-reading, writing, speaking and post-reading, writing and listening tests had a normal distribution ($p > .05$). Pre-listening and post-speaking tests were not normally distributed ($p < .05$) (see Table 42). Considering the data distribution, I applied a t-test to analyse the reading and writing scores and a Wilcoxon Signed Ranks Test to explore listening and speaking results.

Table 42. Normality Tests for Pre-and-Post-tests by Abilities

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pre-R	.282	7	.098	.844	7	.108
Pre-W	.241	7	.200*	.937	7	.609
Pre-L	.320	7	.029	.796	7	.038
Pre-S	.326	7	.023	.817	7	.060
Post-R	.180	7	.200*	.891	7	.279
Post-W	.296	7	.063	.840	7	.099
Post-L	.153	7	.200*	.972	7	.909
Post-S	.276	7	.115	.789	7	.032

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

The paired samples t-test showed that there was an improvement in the post-reading test, but this difference was not significant: pre-reading test ($M = 77.86$, $SD = 12.59$) and post-reading test ($M = 83$, $SD = 10.92$) conditions; $t(6) = 2.1$, $p = .086$. The results of the writing tests demonstrated a positive increase in the post-writing test, which was statistically significant: pre-writing test ($M = 75.71$, $SD = 9.76$) and the post-writing test ($M = 91.43$, $SD = 6.90$) conditions; $t(6) = 5.3$, $p = .002$ (see Tables 43 and 44).

Table 43. Descriptive Statistics of Reading and Writing Scores. T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Post-R	83.00	7	10.924	4.129
	Pre-R	77.86	7	12.589	4.758
Pair 2	Post-W	91.43	7	6.901	2.608
	Pre-W	75.71	7	9.759	3.689

Table 44. T-Test for Pre-and-Post-reading and writing Tests

Paired Samples Test

		Paired Differences							
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
					Lower	Upper			
Pair 1	Post-R-Pre-R	5.143	6.619	2.502	-0.979	11.264	2.056	6	0.086
Pair 2	Post-W- Pre-W	15.714	7.868	2.974	8.438	22.991	5.284	6	0.002

Figure 15 shows that 71.4% of the participants improved their reading comprehension scores after the lessons, and 28.6% decreased their scores. Figure 16 also interestingly shows that all the participants enhanced their writing skills.

Figure 15. Differences Between Pre-and-Post-reading Tests

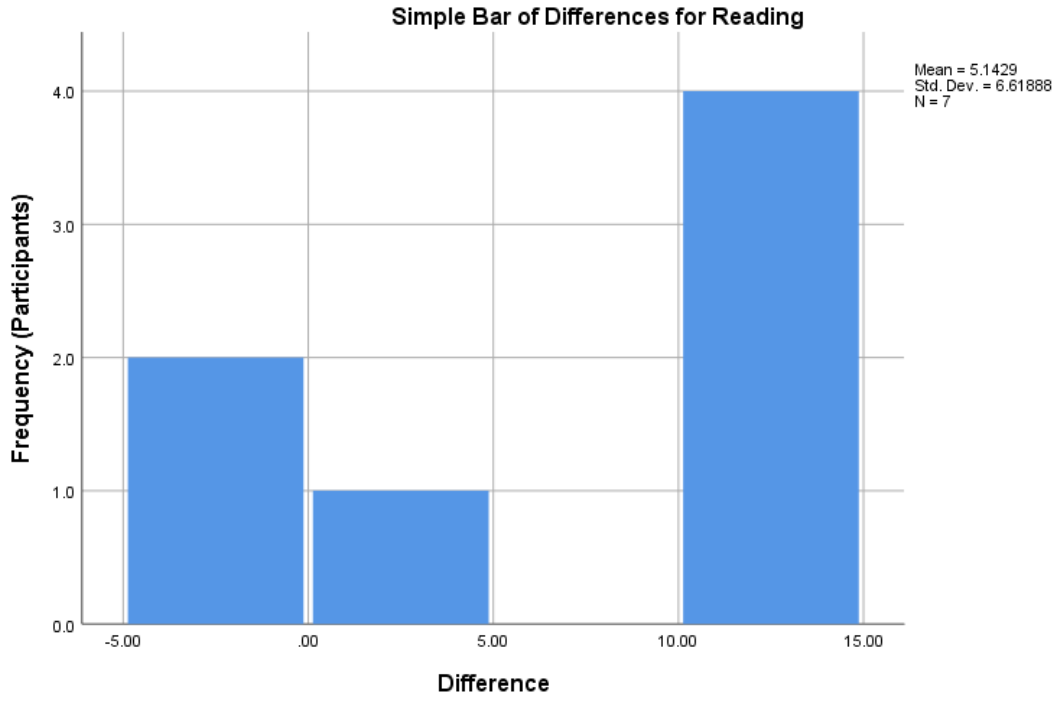
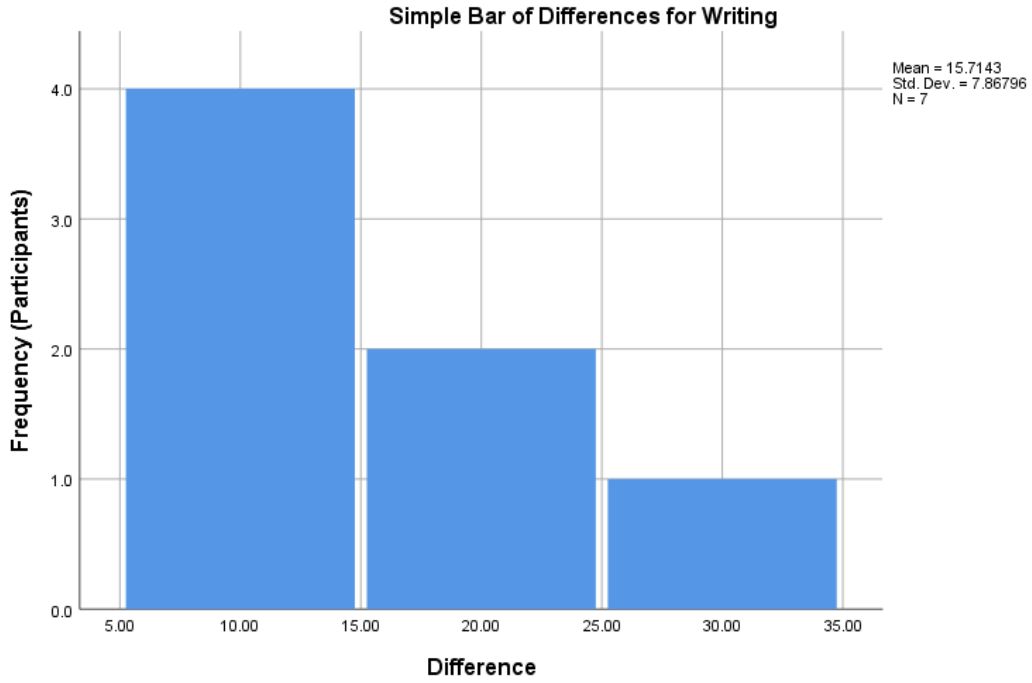


Figure 16. Differences Between Pre-and-Post-writing Tests



As explained above, listening and speaking results were analysed using a Wilcoxon Signed Ranks Test due to their distribution. The results indicated that there was a positive and statistically significant increase in both tests. The scores in the post-listening test (*Md* = 84) were higher than the ones in the pre-listening test (*Md* = 80), *z* = -2.20, *p* = .028. Similarly, the post-speaking test results (*Md* = 91) increased in comparison with the pre-speaking test (*Md* = 80), *z* = -2.23, *p* = .026. Tables 45 and 46 summarise the results of these statistical tests.

Table 45. Descriptive Statistics for Pre-and-Post- listening and speaking Tests

Descriptive Statistics

						Percentiles	
			Std.			50th	
	N	Mean	Deviation	Minimum	Maximum	25th	(Median)	75th
Pre-L	7	64.57	23.028	32	84	36	80	84
Pre-S	7	77.86	7.537	64	84	71	80	84
Post-L	7	82.86	12.799	60	100	76	84	92
Post-S	7	86.29	11.011	64	95	80	91	93

Table 46. Wilcoxon Signed Ranks Test for Listening and Speaking Tests

Test Statistics[a]

	Post-L - Pre-L	Post-S - Pre-S
Z	-2.197[b]	-2.232[b]
Asymp. Sig. (2-tailed)	.028	.026

a. Wilcoxon Signed Ranks Test
b. Based on negative ranks.

These positive differences are also observed in Figures 17 and 18, which show that 86% of the participants improved their listening comprehension and speaking scores after the growth mindset oriented English lessons. Also, it is noticed that 14% of the participants (*n* = 1)

decreased their post-listening score and did not experiment with any change in the post-speaking test.

Figure 17. Differences Between Pre-and-Post-listening Tests

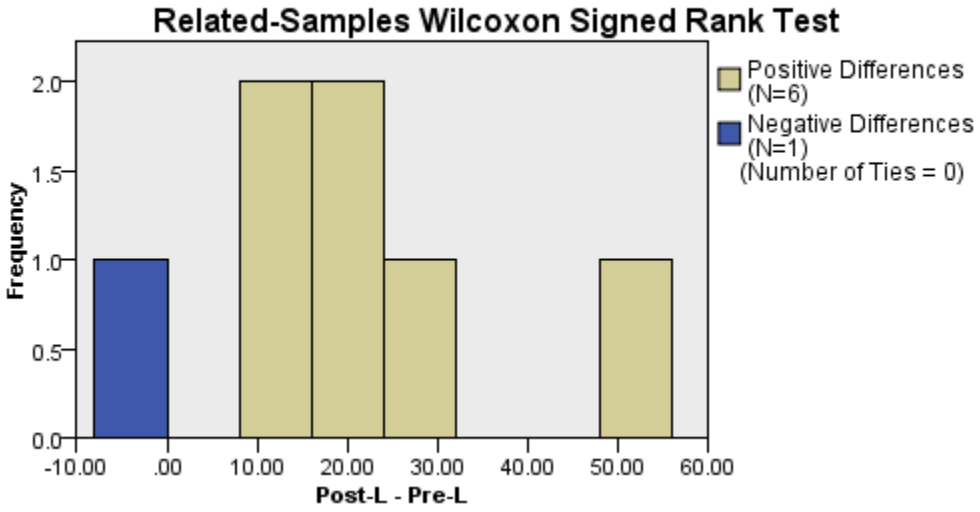


Figure 18. Differences between Pre-and-Post-speaking Tests

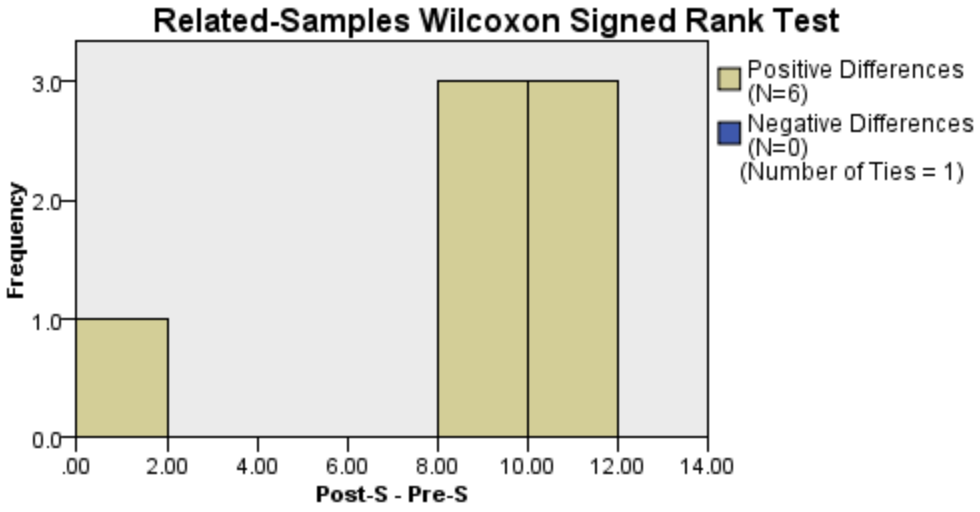
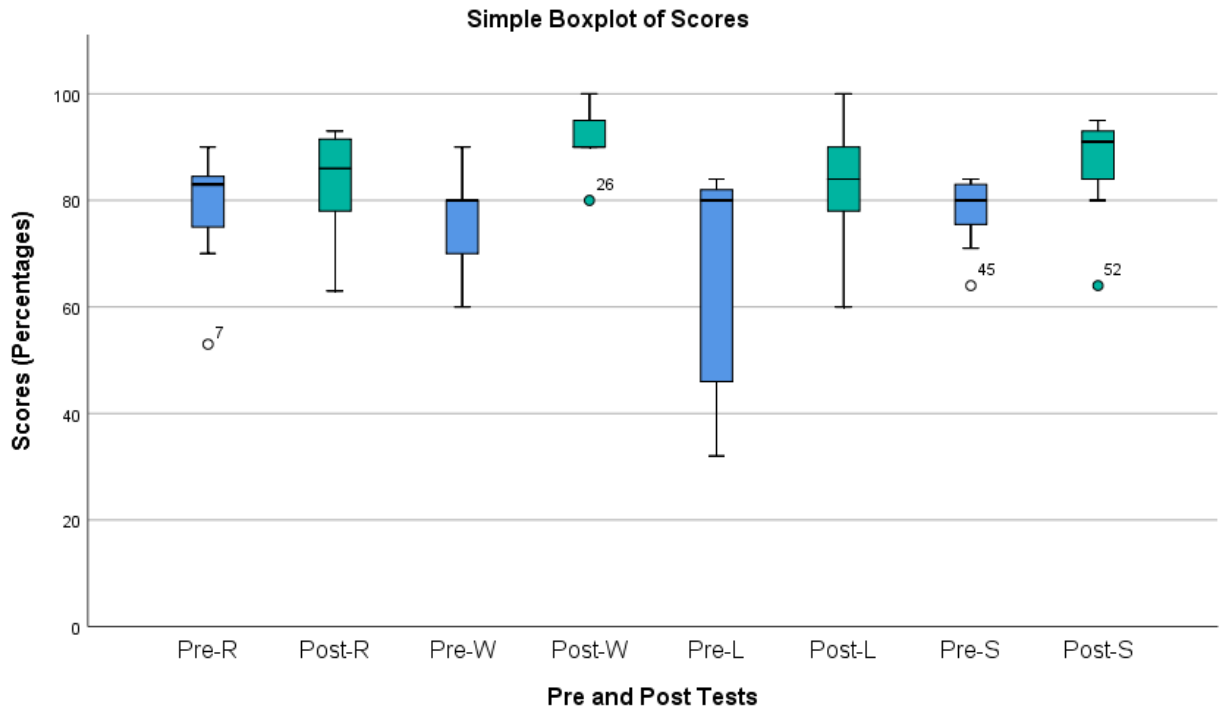


Figure 19 summarises all the results of the pre-and post-tests taken by the participants before and after the online classes, which intended to develop growth mindsets. All the post-scores are higher than the pre-scores; listening and writing post-results were the ones that improved the most compared to post-speaking and reading tests.

Figure 19. Boxplots of Each Pre-and-Post-Tests



In conclusion, the 24 growth mindset oriented English online lessons had a positive and statistically significant effect on the participants' English achievement. In a more detailed analysis, the classes were efficient in improving the scores of the four abilities on which students were evaluated. Listening, writing and speaking post-scores were higher and statistically significant, while the post-reading test scores also increased but were not statistically significant. In the Cambridge scale, the students obtained A1 and A2 levels in the pre-tests, and most of them improved to A2 and B1, respectively. In total, it could be argued that classes designed to

promote a growth mindset improved the participants' general English level and most of the English skills significantly.

4.7.2 Qualitative Data

The 24 English lessons, which were taught with a growth mindset orientation, aimed to develop students' growth mindset with the ultimate goal of improving their academic achievement in English. Qualitative data was analysed and showed that the students developed a growth language learning mindset, both in general and for specific language learning domains. However, this finding will not be explained in this section as the focus is to determine whether there is evidence to support the claim that the growth language learning mindset strategies helped to increase the students' academic achievement. The analysis of the data demonstrated that students noticed an improvement in their English language skills after creating a plan to achieve their goals, following that plan, working hard, and utilising language learning strategies, all of which were part of the growth language mindset strategies taught in the 24 English lessons. One theme with three codes provides evidence that the English lessons with a growth mindset orientation contributed to an increase in academic achievement.

4.7.2.1 Theme: Strategies to Develop Growth Language Learning Mindsets Facilitated English Development.

4.7.2.1.1 Code 1: Hard Work and Effort to Accomplish Goals.

As part of the growth language learning mindset strategies, students learned about the importance of developing a growth mindset, overcoming challenges, and setting goals. As homework, the students were asked to write down their goals for English language learning. Six out of seven participants set challenging goals and created detailed plans to achieve them at the beginning of the course. The students expressed their desire to improve their overall English

proficiency by enhancing their productive skills (speaking and writing) and receptive skills (listening and reading). All of these students answered all the questions to create a concrete plan and provided a detailed action plan.

Participants explained the exact activities they planned to do, which days of the week they would complete these activities, and what materials and strategies they would utilise. The students mentioned they would pay a lot of attention to the English lessons and would use that material to improve their skills. Luis stated, “I’ll reach my goals by participating in all the classes, realising the quizzes that are requested and watching the contents given by the teacher”. Additionally, all students planned to engage in additional English learning activities outside of class, such as utilising online resources, watching English movies, and singing English songs. Gabriel provided an example of his planned activities by saying:

> I will do this in my house every day during the afternoon. I will read three chapters, listen to 10 minutes of English content, and listen to two new English songs while reviewing their lyrics and trying to sing along. Before the final evaluation of this course, I will make a list of words from the activities mentioned above that I do not know, search for their meanings, and learn them. I will accomplish all of this using my cellphone and computer[10].

Between lessons 2 and 12, the students continued to develop their growth language learning mindsets in each class. For instance, they learned that although travelling is an excellent way to learn and practice a new language, it is also possible to learn a new language in a classroom. They also learned about the benefits of learning English in a classroom, the importance of making mistakes and reacting positively to them, and the importance of effort to achieve goals and brain malleability.

[10] Typos in this extract were amended to facilitate the comprehension of the participants’ words.

In the middle of the course, during lesson 13, the students were asked to self-assess their progress and activities to fulfil their SMART Goals. The report was answered by 4 out of 7 participants, and all of them described having followed their plan and putting in the necessary effort and hard work to achieve their goals. An example of their hard work was given by Barb, who said the following:

> I have completed all the activities that I set out to do, but I did them on my own time. I read more in English now and write down new vocabulary. For example, I use the activity of sticking important words on my wall. It has helped me especially with differentiating between past, present and future. Another activity I do is watching movies, sitcoms, or series in English with English subtitles. It has helped me a lot to listen to different accents, learn new vocabulary, and practice my pronunciation. I have also watched grammar videos to learn about the differences between two or more words and the way they are pronounced.[11]

Overall, the students' reports showed that they were committed to their goals and had made a significant effort to improve their English skills.

4.7.2.1.2 Code 2: Use of Language Learning Strategies to Fulfil Goals.

As part of the growth mindset strategies, the students learned about various language learning strategies for different domains. For example, to improve their reading comprehension, they learned strategies such as planning, predicting and scanning. To enhance their listening skills, they revised strategies regarding going beyond immediate data, using senses to understand and remember, paying attention, selective attention and conceptualising. They also learned strategies to use steps and functional approaches to enhance their L2 writing, conceptualising with details for grammar learning, and different strategies to enhance their vocabulary in the target language.

[11] Typos in this extract were amended to facilitate the comprehension of the participants' words.

During session 13, when reflecting on their progress, all students mentioned practising language learning strategies taught in class. For example, Gabriel explained that to improve his listening comprehension, he uses the following strategies: "selective attention, linking the words I understand, and I try to do an approximate mental translation and listen again to try to understand better".

Additionally, they used suggestions provided by the teacher in their feedback about goal setting and plans to improve their sub-skills which were not covered in class yet. For instance, María explained that to improve her pronunciation, she did the following: "Sometimes I record myself and practice the correct pronunciation of words. Other times, I write the words correctly, and at the same time, I write how they sound (pronunciation)".

4.7.2.1.3 Code 3: Effort and the Use of Strategies Influenced English Development.

Answers about self-assessment that the students provided showed they agreed that they had made progress in their English in general and in each language learning domain (i.e. speaking, pronunciation, reading, vocabulary, writing, punctuation, listening and grammar). Barb's statement reflects this:

> It's crazy to think that now I can understand English. Maybe not everything, but I understand a lot more than before. It's due to practice and paying attention to dialogues and listening. It might be slow, but I'm trying, and I can do it.

Similarly, María expressed her satisfaction with her progress:

> As the days pass, I have noticed progress in some important aspects to me, such as comprehension and understanding. Although this is just a small part of my goals, I have never felt so good about my English level as I do now. In a short time, I have done a few things for myself to improve my learning and work towards one of my big dreams, which is to speak English fluently. I am honestly thankful, satisfied, and happy. I will continue working and putting my best effort into practising the difficult and new things for me, and soon enough I will achieve all the goals on my list.[12]

[12] Typos in this extract were amended to facilitate the comprehension of the participants' words.

Students concluded that their effort and the use of strategies led to English improvement. María's reflection exemplifies this:

> When I use the strategies every day and put forth my best effort, I get good results, the results that I want. When I don't practice with the strategies every day or don't pay enough attention to revise and practice the new things, the results aren't good.

4.7.2.2 Conclusion of Qualitative Data

It can be concluded that the growth mindset strategies taught in the English lessons helped to increase the students' academic achievement in English. The students developed a growth mindset towards language learning, worked hard to accomplish their goals, utilised language learning strategies, and finally noticed an improvement in their English language skills. Qualitative data results provided evidence that the English lessons with a growth mindset orientation contributed to an increase in academic achievement. The first code shows that students set challenging goals, created detailed plans to achieve them, worked hard, and utilised language learning strategies. The second code shows that the students learned various language learning strategies for different domains and used them to fulfil their goals. The third code shows that students' effort and the use of strategies influenced English development, as they noticed improvements in their skills. The three codes included in the theme "Strategies to develop growth language learning mindsets facilitated English development" show that the students showed a commitment to their goals and made a significant effort to improve their English skills. Therefore, teaching English with a growth mindset orientation can be a beneficial approach to developing students' growth mindset towards language learning, leading to academic achievement in English.

4.7.3 Conclusion of Quantitative and Qualitative Data

Quantitative data showed that students improved their academic achievement after attending English lessons with a growth mindset orientation. While a control group would have helped to prove that these changes were solely due to the growth mindset strategies incorporated in each lesson, the qualitative data shows that students understood and applied those strategies and noticed that their English skills progressed by following those recommendations.

4.8 Conclusion

The quantitative analysis revealed a statistically significant positive but weak correlation between the participants' language mindsets and L2 motivation. Looking at the results in more depth, language mindset is associated better with two subscales of the L2MSS questionnaire, namely the Ideal L2 self and Attitudes to learning English. However, the results showed a weak negative relation with the Ought-to L2 self sub-scale. Students' language mindsets did not correlate with English academic achievement and their teachers' language mindsets (i.e. the correlation was not statistically significant). Quantitative and qualitative data demonstrated that the twelve online sessions to develop growth language mindsets improved students' language mindsets and their motivation to study English right after the last sessions. Also, quantitative data revealed that the sessions had a prolonged effect on students' language mindsets but not on students' L2 motivation. Quantitative and qualitative data analysis showed that English lessons with a growth mindset orientation helped to increase the students' English level. The 24 online English lessons enhanced the participants' general English academic achievement and each of the four evaluated skills. The differences between pre-and post-tests were statistically significant for the general KET results and specifically for the listening, writing and speaking tests.

However, they were not statistically significant for the reading test. In the next chapter, I discuss these results in light of existing research and draw implications for classroom practice.

Chapter 5: Discussion

5.1 Introduction

This chapter will discuss the findings for each of the six research questions and present the pedagogical implications of this research. The first three research questions centre on the relationships between mindsets and motivation, mindsets and achievement, and students' and teachers' mindsets, respectively. The findings are compared with similar studies that have addressed these relationships, which usually involve different areas of knowledge as language learning mindsets have been scarcely investigated. The next two research questions are related to the 12 online sessions' effectiveness in developing growth mindsets and their effect on students' language mindsets and L2 motivation. The last research question refers to the effect of the 24 online English classes with a growth mindset orientation on students' English academic achievement. It is worth noting again that most of the literature that reports on interventions to change students' mindsets, motivation and achievement refers to general mindsets rather than language mindsets. Nonetheless, many aspects can be compared and contrasted to the research reported here, which offers interesting insights into language learning mindsets. Considering the results of this research and further research suggestions, the chapter ends with pedagogical implications and provides a guide to facilitate the development of growth language mindsets in the classroom.

5.2 RQ 1: Relationship Between Language Mindset and L2 Motivation

5.2.1 Language Mindsets Are Related to L2 Motivation

Motivation is one of the most widely studied psychological concepts in language education (Dörnyei & Ryan, 2015; Ushioda, 2012; Williams et al., 2015). Therefore, it is not surprising that mindset investigations have usually tried to examine the relationship between

mindsets and motivation. Generally, studies have not exclusively focused on exploring the relationship between language mindsets and L2 motivation using the leading model of language learning motivation (i.e. L2MSS). Lou and Noels (2020) encouraged future research to investigate the relationship between language mindsets and other motivational constructs, such as the L2MSS and SDT. The present study measured language mindsets using the LMI, a validated instrument (see Lou & Noels, 2015, 2016). In addition, the L2MSS questionnaire was used to measure students' motivation. Dörnyei's L2MSS was chosen as it has been the most generally used theoretical framework to examine L2 motivation over the last ten years.

With regard to the relationship between language mindsets and L2 motivation, the results showed a statistically significant association between the LMI Q and the L2MSS Q. While the association of the whole L2MSS Q with LMI Q was weak, $r(86) = .36$, $p < .001$, it was stronger for the Ideal L2 self and Attitudes to learning English. Lou and Noels (2020) predicted an association between language mindsets and the Ideal L2 self, which reflects learners' ideal image of the type of L2 users they aspire to be in the future. The current study confirms their hypothesis as there was a statistically significant correlation between mindsets and the ideal L2 self, $r(86) = .42$, $p < .001$. This is similar to Zarrinabadi et al.'s (2022) study, which reported that growth mindsets and ideal self significantly correlated positively (.318**). As Lou and Noels (2020) argued, growth mindset oriented learners might visualise a positive ideal self as they believe they can improve their performance through effort and overcoming obstacles, which will help them become effective users of the target language. Therefore, learners with a growth-mindset orientation might maintain their Ideal L2 self motivation because they believe in improvement and work hard to fulfil their goals.

This investigation also showed a slightly stronger association between language mindsets and attitudes to learning English, $r(86) = .53$, $p < .001$. Attitudes to learning English, also called the L2 learning experience (Al-Hoorie, 2018), do not operate at the same level as the ideal L2 and ought-to L2 selves. This construct "is concerned with attitudes and evaluations of the present learning environment rather than a future-oriented self-guide" (Al-Hoorie, 2018, p. 725). Therefore, in the current study, language mindsets had the strongest correlation with the L2 learning experience (in comparison with the future-oriented selves-guides), which means that growth-mindset participants tended to have positive attitudes and evaluations of the current English learning environment.

The current study also shows that language mindsets were associated with participants' future goals, dreams and present experiences while learning English. Therefore, it can be suggested that growth mindsets relate to students' recent L2 learning experiences and their future aspirations (ideal L2 self). It was also shown that language mindsets were negatively associated with the ought-to L2 self, $r(86) = -.28$, $p = .013$.

These results are somehow similar to Cacali's (2019) study with 128 university students in Japan. For example, Cacali (2019) also found that mindsets and L2 motivation significantly correlated in general (more detailed information is in section 2.5.3). In Cacali's (2019) study, an in-depth analysis revealed a relationship between mindsets and the items from the L2MSS. The other similarity with the present research is that in Cacali's (2019) investigation, mindsets significantly correlated with the ideal L2 self ($r = .31$) but not with the ought-to self ($r = -.02$). However, in Cacali's (2019) study, there was no statistically significant relationship between mindsets and L2 learning experience ($r = .16$). An important difference though is that Cacali

(2019) measured general mindsets instead of language mindsets, and the participants were university students rather than adolescents.

Two other empirical studies on language mindsets and motivation (though not precisely using the L2MSS questionnaire) also support the language mindset-motivation relationship. Lou and Noels (2016, 2017a) examined the relationship between language mindsets and some motivational variables. Both studies showed that participants with growth mindsets endorsed more substantial learning goals and, in failure situations, more mastery-oriented responses and more intention to continue learning a new language than students with fixed mindsets (for detailed information, see section 2.5.3). Researchers concluded that language mindsets could influence learners' motivation; therefore, it can be inferred that these two variables are related. Waller and Papi (2017) investigated the relationship between language mindsets about writing and L2 writing motivation and found that growth language mindsets about writing predicted L2 writing motivation (for detailed information, see section 2.5.3). Waller and Papi's (2017) study also indicated that there is a relationship between a specific language learning domain and its domain-specific motivation.

5.2.2 The Ought-to L2 Self as a Limited Motivational Factor

Quantitative and qualitative results in this study showed that language mindset correlated better with the ideal L2 self and attitudes to learning English rather than with the whole questionnaire. The mixed methodology demonstrated that the participants completely ignored the ought-to L2 self. The L2MSS questionnaire showed that secondary students in this sample did not attend to what other people (e.g. teachers, parents, and peers), that is their significant others, considered necessary for their future. Qualitative data also revealed that students' motivation was

strongly related to their own dreams, goals and experiences rather than to the expectations or desires of third parties.

This finding could be linked to some studies that have concluded that the ought-to L2 self is not always related to L2 motivation. On the contrary, the ideal L2 self and attitudes to learning English strongly predict motivation (e.g. Csizér & Kormos, 2009; Kormos et al., 2011; Papi, 2010; Papi & Teimouri, 2012; Ryan, 2009; Taguchi et al., 2009). The ought-to L2 self has been viewed as a debatable construct, as in some studies, it has shown limited motivational significance (e.g. Csizér & Kormos, 2009; Kormos et al., 2011; Papi & Teimouri, 2012). In other studies, the ought-to L2 self has shown a statistically significant but small quantity of variance in motivation (e.g. Papi, 2010; Ryan, 2009; Taguchi et al., 2009).

In a meta-analysis of 32 research studies, including 32,078 language learners, Al-Hoorie (2018) investigated the correlation between the three components of the L2MSS and educational outcomes (intended effort and achievement). The study demonstrated that the three components of the L2MSS positively correlated with intended effort, but the correlation declined with achievement. In this meta-analysis, the ought-to L2 self also showed the lowest correlation with the educational outcomes concerning the other two components (ideal L2 self and L2 learning experience). The ideal L2 self and L2 learning experience correlated more strongly with intended effort (r = .61 and r =.66 respectively) than with the ought-to L2 self (r =.38). Similarly, the ideal L2 self and achievement (r = .20) and the L2 learning experience and achievement (r = .17) correlations were higher than the ought-to L2 self and achievement, which was negative (r = -.0.5). Al-Hoorie (2018) concluded that the ought-to L2 self construct might need to be reconsidered as a motivational factor.

The ought-to L2 self might be inconsistent because it concerns the expectations of others (e.g. parents, peers and authoritative figures). Higgins (1998) claims that the ought-to L2 self represents minimal goals. Al-Hoorie (2018) states that learners might try to achieve the minimum necessary to please other individuals' motives instead of accomplishing them more efficiently as individuals might do with their own desires. Al-Hoorie (2018) also states that the minimal goals pursued in the ought-to L2 self might not maintain learners' engagement and enthusiasm.

Different researchers have tried to explain the marginal effect of the ought-to L2 in motivation. For example, in the possible selves theory, Markus and Nurius (1986) reflected on the role of others in constructing one's own possible selves. They highlighted that most of the time, another person's perception is not clear and usually does not cause much worry. Similarly, in the SDT, Deci and Ryan (2002) underlined that intrinsic interests (somehow manifested in the ideal L2 self) are stronger predictors of effort than extrinsic motivation (which might be represented in the ought-to L2 self). Mackay (2014) revealed that some of the participants interpreted external demands to learn a new language as demotivating factors in the interviews.

Dörnyei (2009b) claimed that an important point to consider is the internalisation of external influences. Dörnyei and Ushioda (2009) highlighted that "because humans are inherently social beings, all their self-perceptions are socially grounded" (p. 352). They reflected on this and wondered whether the L2 learner entirely owns the ideal L2 self or others might have influenced or imposed those desires on learners. Taking this into account, it might be that students in this sample have internalised their significant others' opinions and recognised them as their own (exposed in the ideal L2 self) instead of acknowledging that they were proposed by other people.

Furthermore, the age of the participants might be a factor potentially determining the inconsistency of this construct. Kormos and Csizér (2008) and Nikolov (1999) state that the dynamics of motivation might be diverse at different ages. Csizér and Kormos (2009) found a non-statistically significant relationship between the ought-to L2 self and motivation in secondary students. Csizér and Lukács (2010) claimed that the ought-to L2 self construct did not emerge in their data because the participants, who were secondary students, were, to some extent, young to incorporate within themselves the social pressure that may be put on them. This might explain why the participants in the present study (secondary students) got the lowest score in the L2MSS questionnaire on the ought-to L2 self, compared to the ideal L2 self and L2 learning experience (see Table 20). Similarly, this crucial difference was observed by analysing the qualitative data as students did not mention other people's aspirations as a motive to study English.

Cultural issues have also been related to the fact that the ought-to L2 self has been problematic in some studies. MacIntyre et al. (2009) and Segalowitz et al. (2009) have pointed out a cross-cultural variation in the composition and impact of the L2MSS. For example, Taguchi et al. (2009) explain that Chinese and Iranian learners feel responsible and obligated to study and get excellent jobs to help their families. They highlight that Westerners do not feel this pressure as they tend to be more individualistic. This might be related to the ought-to L2 self. According to this information, it might be the case that Chilean students, being part of the Western culture, might not feel responsible or obligated to follow their authority figures' advice.

While some studies (e.g. Taguchi et al., 2009) provide valuable contributions to cultural variations in motivation, it is important to avoid over-generalisation and consider the dynamic and diverse nature of culture. The concepts of hybridity and sub-cultures (more information

about these notions in section 2.8) can provide valuable frameworks for understanding the complexity of culture and its influence on motivation. For example, the concept of cultural hybridity, introduced by Bhabha (1994), has been applied to understand the experiences of individuals navigating diverse cultural contexts (Marotta, 2020). Consequently, it can be inferred that individuals' motivation can also be influenced by their exposure to multiple cultural backgrounds, diverse experiences, and various influences. Furthermore, the existence of sub-cultures within broader cultural contexts (Hebdige, 1979) should also be acknowledged, as they may contribute to motivation variations. Considering this perspective, it is possible that other Chilean students, who were not part of the participants in this study, might experience a sense of responsibility or obligation to comply with the advice given by their authority figures.

Al-Hoorie (2018) argues that some scholars (e.g. Teimouri, 2017; Thompson & Vásquez, 2015) have highlighted the deficient nature of the ought-to L2 self and have recommended enhancements. As the three constructs of the L2MSS Q are not equally linked to L2 motivation, it might be sensible to try other approaches to study L2 motivation. For example, Papi et al. (2019) suggested using a broader scope in L2 motivation to include more motives with different regulatory orientations. They proposed the 2 x 2 model of L2 self-guides, which reconceptualised the L2 self-guides based on Higgins's work related to self-discrepancy theory [13]and regulatory focus theory [14](see Higgins, 1987; 1997). They included the Ideal L2 self and

[13] The self-discrepancy theory claims that individuals compare their 'actual self' to internalized standards or the 'ideal/ought self'. Inconsistencies between "actual", "ideal" and "ought" are associated with emotional discomforts. Self-discrepancy is the gap between two of these self-representations that leads to negative emotions.
[14] Regulatory focus theory describes how people self-regulate (aligning oneself with one's goals). According to regulatory focus theory, people may adopt a promotion focus (a focus on growth, attaining desired outcomes) or a prevention focus (a focus on safety and security, avoiding undesirable consequences).

the Ought-to L2 self, which were divided into two components: their own and other standpoints based on promotion and prevention regulatory focus (see Papi et al., 2019).

5.2.3 Relationship Between Mindsets and Motivation in Other Areas of Knowledge

Studies on general mindsets have explored the association between mindsets and different motivational variables, such as goals, beliefs about effort, attributions, strategies in response to failure (Blackwell et al., 2007); behavioural, emotional, and cognitive engagement (Jennings & Cuevas, 2021). These studies have also revealed an association between mindsets and motivational variables.

In Blackwell et al.'s (2007) study 1, growth mindsets correlated positively with effort beliefs, learning goals, low helpless attributions and positive strategies (r = .54, r = .34, r = .44 and r = .45 respectively) (for more information, see section 2.5.1). In Blackwell et al.' s (2007) study, the motivational variables were different as in the present study, the three aspects of the L2MSS Q were used to measure motivation. However, the correlations are similar to two components of the L2MSS Q in both studies. Language mindsets positively correlated with the ideal L2 self (r = .42) and attitudes to learning English (r = .53).

Jennings and Cuevas (2021) found an association between increases in mindsets and motivation (motivation was measured using behavioural, emotional and cognitive engagement scales). All the correlations between mindsets and these scales were statistically significant (r = .61, r = .54, and r = .47 respectively). Similarly to the present study, Jennings and Cuevas (2021) found that mindsets correlated with motivation moderately.

In a more global study, PISA 2018 also revealed that individuals with a growth mindset reported higher motivation levels to master tasks; they also reported higher levels of self-

efficacy, lower levels of fear of failure, appreciated school more and established more ambitious learning goals (Gouëdard, 2021b). It can be concluded that mindsets (general mindsets or language mindsets) moderately correlate with different aspects of motivation (e.g. goals, beliefs about effort, attributions, strategies in response to failure, ideal L2 self and attitudes to learning English).

5.2.4 Other Factors Affecting L2 Motivation

Other factors might have influenced L2 motivation, including the COVID-19 pandemic, as this research was carried out between April 2020 and September 2020. In Chile, students from all over the country stopped attending face-to-face classes for the entire 2020 academic year (from March 2020 to December 2020). They continued studying in different modalities depending on their socio-economic status. Only some of them had access to online classes, as many others did not have access to technological devices during that time. Camacho-Zuñiga et al. (2021) investigated the effects of the COVID-19 pandemic on 13,000 Chilean students' feelings at different stages, including secondary students. The results showed that students had a general low energy level and dominance of negative emotions, the most common ones being anxious, stressed, overwhelmed, tired and depressed. These results were consistent among students at all academic levels. Considering the Chilean reality during the lockdown and Camacho-Zuñiga et al. (2021) study, it might be possible that the participants' motivation was affected by the pandemic.

5.3 RQ 2: Relationship Between Students' Language Mindsets and Academic Achievement

Extensive investigations have examined whether mindsets are linked to academic achievement. Those investigations have been carried out in different subject areas and not necessarily in English classes (see section 2.6.1). The age of the participants varies (see section

2.6.1), but most studies were conducted with adolescents to test the effects of growth and fixed mindsets among individuals going through a challenging transition in their lives (Dweck, 2017; Yeager et al., 2014). Most of these investigations used an experiment, such as providing different types of feedback or teaching students about brain malleability. Various studies have reported that participants in the incremental condition get higher achievement scores than those in the entity condition (e.g. Aronson et al., 2003; study 2 in Blackwell et al., 2007; Good et al., 2002). These studies will be later discussed in section 5.7.

In this section, the analysis will focus on the results of RQ 2, whose variables (mindsets and achievement) were obtained before the sessions intended to promote growth mindsets. Thus, this discussion part will include studies that have looked for a relationship between mindsets and achievement without performing a manipulation: before the intervention, at a basepoint or without intervention (e.g. study 1 in Blackwell et al., 2007; Claro et al., 2016; Mouratidis et al., 2017; Romero et al., 2014). As explained in section 2.6, studies testing the relationship between mindset and academic achievement have been inconsistent as they have reported different results. Similarities and differences in the methodology of these studies will be discussed to finally reach a conclusion on the mindset-academic achievement relationship.

5.3.1 The Story so Far: Language Mindsets Are Not Related to Academic Achievement

In the current study, the participants were adolescents. Their language mindsets were measured using the LMI Q1 (which was answered in April 2020 by the most extensive number of participants, compared to LMI Q2 and LMI Q3). Academic achievement was assessed using students' English GPA from the previous academic year (December 2019), following the paradigm used in other investigations (e.g. Aronson et al., 2002; Mouratidis et al., 2017, Paunesku et al., 2015; Yeager et al., 2016, 2019). The results of the current study showed that the

participants' mindsets (n = 79) did not correlate with academic achievement. The relationship was negative, weak and nonsignificant, $r(79) = -.002$, $p = .99$. The results of this investigation are similar to the one study on language mindsets and achievement. Lou et al. (2021) brought to light that language mindsets did not predict grades. Nevertheless, they observed that students in the growth profile obtained the highest grades (more information can be found in section 2.6.3).

5.3.2 Similarities and Differences Between Mindsets and Achievement in Other Studies

Studies concerning the relationship between mindsets and achievement have been conducted in different areas of knowledge, including only one study on language learning mindsets. Most participants were described as passing through a challenging transition, especially during adolescence. In most investigations, mindsets were categorised using or adapting the theory of intelligence scale (e.g. Dweck, 1999). Academic achievement has been usually assessed through students' GPAs or standardised tests. In general, studies that have investigated the mindset-achievement relationship have found mixed results.

In this study, participants' (n = 79) language mindsets were not positively correlated with English academic achievement as was the case in many other investigations (Bazelais et al., 2018; Blackwell et al., 2007 study 1, considering students' 6th-year maths tests and mindsets at the beginning of 7th grade; Dupeyrat & Mariné, 2005; Gonida et al. 2006; Leondari & Gialamas, 2002; Li & Bates, 2019; 2020; Lou et al., 2021; Robins & Pals, 2002; Sisk et al., 2018). In fact, the nonsignificant relationship was weak and slightly negative ($r = -.002$), similar to previous studies' findings for some participating groups (e.g. Li & Bates, 2020; King & Trinidad, 2021; Sun et al., 2021).

Previous studies that have found a positive mindset-achievement relationship were conducted mainly with adolescents (Claro et al., 2016; Blackwell et al., 2007; Gouëdard, 2021a;

King & Trinidad, 2021; Mouratidis et al., 2017; Romero et al., 2014). While studies that did not find an association have included participants from different age groups, for example primary school students (Leondari & Gialamas, 2002; Li & Bates, 2019), adolescents (Blackwell et al., 2007 study 1, using data at a basepoint; Donohoe et al., 2021; Gonida et al., 2006), college students (Bazelais et al. 2018); university students (Li & Bates, 2020; Lou et al., 2021; Robins & Pals, 2002), returning to schools adults (Dupeyrat & Mariné, 2005), and mixed samples including participants of different ages (Sisk et al., 2018). The participants of the present study were adolescents; therefore, the no association between mindset and achievement align with some studies conducted in the USA, the UK and France (Blackwell et al., 2007 in study 1, considering prior maths test scores; Donohoe et al., 2021; Gonida et al., 2006, respectively).

The studies that have found a positive association have been carried out in different parts of the world, such as in the USA (Blackwell et al., 2007; Claro & Loeb, 2019; King & Trinidad, 2021; Romero et al., 2014), Greece (Mouratidis et al., 2017), Chile (Claro et al., 2016) and in multiple countries (Gouëdard, 2021a). Similarly, studies that have not found a relationship were also conducted in several places, such as in the USA (Blackwell et al., 2007 study 1, using data at a basepoint; Robins & Pals, 2002), Greece (Leondari & Gialamas, 2002), France (Dupeyrat & Mariné, 2005; Gonida et al. 2006), Canada (Bazelais et al. 2018; Lou et al., 2021), China (Li & Bates, 2019), the UK (Donohoe et al., 2021; Li & Bates, 2020) and in multiple countries (Sisk et al., 2018). The current study was conducted in Chile, and therefore, a positive association between mindset and achievement could have been predicted, considering the results of Claro et al.'s (2016) study in Chile. However, the results of the present study did not find a relationship, which is not awkward, considering that some investigations conducted in the same countries (e.g. Greece and the USA) have found different results.

Claro et al. (2016), using a dataset of more than 160,000 students' mindsets and maths and language achievement, found that these variables were connected. Growth mindsets predicted students' higher achievement than fixed mindsets. Differences between the present study and Claro et al.'s (2016) study might be due to a range of reasons, the first one being the limited sample as students participated voluntarily. Generally, they had good marks (above 5 on a scale between 1 and 7) and they were growth mindset oriented (between 3 and 5 on a scale between 1 and 5). It might be possible to find different correlation results if data was collected in a whole class with students with more varied marks (low and high marks). Interestingly, the fact that students were growth mindset oriented is not completely uncommon considering other investigations. For example, in PISA 2018, results showed that most students (almost two-thirds) presented a growth mindset (Gouëdard, 2021b). Also, PISA 2018 findings demonstrated that girls were marginally more growth mindset oriented than boys (Gouëdard, 2021b), and in the present study, female participants were more than male participants (58% vs. 42% respectively).

Another possible explanation for this difference is that Claro et al.'s (2016) study and the current investigation examined different mindsets (general mindsets vs. language mindsets, respectively) and learning areas (language and maths vs. and English as a second language, respectively). Individuals might possess different mindsets for different areas of knowledge (Ryan & Mercer, 2012). It could be that Chilean students' general mindsets and language mindsets differ and could therefore account for differences in their relationship with academic achievement. For both reasons, more studies with a larger number of participants are needed to corroborate the current study's findings. That said, as mentioned earlier, finding different results among students within the same country has been observed in previous studies too. For example, in the USA, some studies have found a positive relationship between mindsets and achievement

(Blackwell et al., 2007; King & Trinidad, 2021; Romero et al., 2014), while others have not (Blackwell et al., 2007 study 1, using data at a basepoint; Robins & Pals, 2002).

5.4 RQ 3: Relationship Between Students' and Teachers' Language Mindsets

Plenty of studies have determined that teachers play a fundamental role in the development of growth mindsets (e.g. Dweck, 1999, 2008, 2010, 2017; Lou & Noels, 2016; 2017a, 2019; Noels & Lou, 2015; Yeager & Dweck, 2012; Yeager & Walton, 2011; Schmidt, Shumow, & Kackar-Cam, 2015; Zhang et al., 2017). However, most of the existing literature concerning mindsets has focused mainly on students without examining the possible influence that other actors, such as teachers or peers, might have on the development of growth mindsets (Dweck, 2017; Good, Rattan, & Dweck, 2012; Haimovitz & Dweck, 2016; Rattan et al., 2015; Sisk et al., 2018).

In the present study, students' (n = 80) and their teachers' (n = 14) mindsets were assessed using the LMI questionnaire. The results demonstrated that students' mindsets were not associated with teachers' mindsets as the correlation was weak and positive, $r(80) = .073$, but not statistically significant ($p = .520$). One limitation of this study is that most students' and all teachers' language mindset scores were between medium and high (between 3 and 5). When teachers scored between 3 and 3.5, students got higher results (between 3.9 and 4.8 approximately), showing that students' and teachers' mindsets were not closely associated. Indeed, students' mindsets were more growth-oriented than their teachers'. However, when teachers scored between 4 and 5 points, the great majority of students also scored within that range. Consequently, there is an association between growth-oriented teachers and their students' mindsets. Most of the participants in this study were not fixed mindset oriented; therefore, it was

impossible to find a higher and significant association. The sample limitation suggests that different results could be found in a sample with a wider variety of mindsets.

Nonetheless, some investigations with a larger number of participants have also found that, generally, students and teachers are growth mindset oriented. For example, in PISA 2018, results showed that most students (almost two-thirds) presented a growth mindset (Gouëdard, 2021b). In Claro et al.'s (2021) investigation conducted in Chile, most teachers (89%) had growth mindsets, which is similar to studies in other countries that have found that it is common for teachers to have growth mindsets (e.g. Frondozo et al., 2020; Park et al., 2016). Therefore, it might be the case that the sample of this research, which is growth mindset oriented, might represent students' and teachers' mindsets in Chile and in other contexts.

5.4.1 Research on the Association Between Teacher and Student Mindsets

The findings of this investigation are similar to the study conducted in Chile by Claro et al. (2021) (see section 2.7.2 for more information). Even though the authors found a statistically significant relationship between teachers' mindsets and students' academic achievement, they did not find a significant correlation between teachers' and students' mindsets. However, this finding needs to be interpreted cautiously as students' mindsets were estimated using only one statement.

Nevertheless, the findings of the current study (no relationship between teachers' and students' mindsets) are different from the results obtained by MacDonnell Mesler et al. (2021). The researchers examined throughout the period of one year whether educators' (n = 57) growth mindsets were related to students' (n = 1,957) growth mindset development. They found a statistically significant relationship between these two variables (see detailed information in section 2.7.2). It might be worth investigating the teachers' and students' mindsets' relationship

using quantitative and qualitative methods. Due to the lack of methods to examine mindsets in naturalistic settings, de Ruiter et al. (2020) recommend using the STEAM coding scheme to explore how teachers might shape students' behaviours and mindsets (see section 2.7.2).

5.4.2 Teachers' Mindsets and Knowledge of How to Promote Them Might Influence Students' Mindsets

Several researchers agree that teachers' mindsets might shape their behaviour and influence their students' mindsets (e.g. de Kraker-Pauw et al, 2017; Dweck, 2017; Dweck & Leggett, 1988; MacDonnell Mesler et al., 2021) (further details in section 2.7.2). However, research has also shown that teachers might not promote the type of mindset they have. For example, Yettick et al. (2016) investigated 600 teachers in the USA and found that the majority of teachers believed in the potential of a growth mindset and its relationship with positive behaviours and outcomes. Nonetheless, only 20% considered themselves good at fostering growth mindsets, and 5% strongly agreed that they were familiar with strategies and solutions to implement with fixed mindset learners. De Kraker-Pauw et al. (2017) examined the relationship between teachers' mindsets and feedback with eleven maths teachers and twelve Dutch teachers of high-school students. They found that fixed-mindset teachers provided more feedback than the growth mindset ones. Schmidt et al. (2015) conducted a study in the USA with teachers. They identified that growth mindset teachers did not always promote growth strategies. Only students whose teacher encouraged growth mindsets effectively achieved positive long-term effects. Teachers' mindsets might not suffice to promote the same mindsets in their students. Therefore, educators also need awareness of how to promote growth mindsets in their learners.

5.4.3 Students' Mindsets Might Be Influenced Not Only by Their Teachers

Another explanation is that other actors, such as parents and peers, might influence students' mindsets. As mentioned in section 2.7.3, some studies have suggested that peers' mindsets might also influence students' mindsets. Donohoe et al.'s (2012) study elucidated that some students had a conflict regarding "working hard" as while their parents might respond positively, their classmates might react negatively to this situation. Later, a couple of studies investigated the peer's mindset's role and found conflicting results. Sheffler and Cheung (2020) concluded that peers' mindsets could influence task value. Sato (2021) examined mindsets in association with problem-solving behaviour and collaborative learning. He found that growth mindset students answered most problem-solving situations, but only a few got involved in collaborative learning. In Sheffler and Cheung's (2020) study, growth mindset individuals were instructed on how to promote growth mindsets, while Sato's (2020) study was conducted in a naturalistic setting (more detailed information in section 2.7.3). These studies suggest that it might not be enough for peers to have growth mindsets, but it might also be helpful that peers could learn how to promote those mindsets.

5.5 RQ 4a: Growth Mindset Sessions and Changes in Students' Language Mindsets

5.5.1 This Study: Language Mindsets Can Change

The present study demonstrated that changing students' language mindsets (n = 49) was possible after giving students related input through participating in twelve online sessions (approximately 4 hours in total). The first six sessions included information about promoting general growth mindsets, such as brain malleability, the importance of asking questions and making mistakes as an opportunity to learn, the power of the word "yet", loving challenges and appreciating that individuals can learn anything as long as they work hard and expend effort. In

each session, the content was connected to learning a new language. The contents of these first six sessions are similar to the recommendations by Williams et al. (2021) to facilitate growth language mindsets. However, the book was released in 2021, while these sessions were delivered in 2020. Although these sessions did not rely on the book, their similarities demonstrate that the sessions included up-to-date information. The subsequent six sessions were exclusively related to language learning mindsets. They were created considering expert recommendations (see section 2.7.5). These sessions included information about language learning beliefs, age-sensitivity beliefs, beliefs on how to improve skills and set goals, and strategies to enhance language learning domains such as reading, writing and vocabulary. Each of the twelve sessions included questions about the content to assess comprehension. The results of post and delayed post language mindset questionnaires (the last one taken three months after the last session) confirmed that the sessions had a prolonged effect.

Language learning mindsets' changes have been scarcely investigated. Only Lou and Noels (2016) have explored whether language mindsets can change and created the LMI Q, an instrument to assess those changes. Therefore, only quantitative methods have been used. Investigations to change individuals' general mindsets have also relied on surveys, such as the theories of intelligence scale (Dweck, 1999). These studies have usually used 2 or 3 items to measure mindsets and assess change. Donohoe et al. (2012) conducted mixed research to assess student mindsets' (general mindsets) changes. Qualitative data confirmed that students' growth mindsets increased after the intervention but decreased three months after the end of the sessions.

A novelty in the present study was the fact that students not only answered the LMI Qs to see whether the sessions changed their language mindsets but also diary entry questions, which provided rich data. Students' written reflections confirmed that the students' growth mindsets got

stronger after the twelve online sessions and provided information that made it possible to see beyond the statements of the LMI.

Students who reported having changed their language learning beliefs (see section 4.5.2) mentioned all the areas seen in the twelve sessions (e.g. brain malleability, the importance of effort, asking questions, making mistakes, setting challenging goals, language learning beliefs, age-sensitivity beliefs, and strategies to improve language learning domains). This means that the sessions' content helped change the participants' language learning mindsets, which was also reflected in the LMI Qs that assessed general language intelligence beliefs, L2 aptitude beliefs and age-sensitivity beliefs (Lou & Noels, 2016). Although all contents of the sessions were helpful, for this group of students it was particularly important to understand that anyone can learn a new language at any age and that it is possible to learn English in classrooms in non-English speaking countries. This corroborates previous studies (e.g. Mercer & Ryan, 2010) which emphasised that applying strategies more appealing to the language learning field is necessary to promote growth mindsets in language learning (see section 2.7.5.1). Besides, other information often explained in mindset studies within other areas of knowledge (i.e. brain malleability, the importance of challenges, learning from mistakes, asking questions) were also explained in these sessions. However, these sessions included activities to enable students to apply these concepts to their language-learning situations.

Another interesting finding of the qualitative data is that students who reported having a growth language mindset before the online sessions confirmed their beliefs with scientific evidence and examples of famous people (see section 4.5.2.2.1). Students could ensure that they could learn by trying hard and also learned some new content to develop growth mindsets from the sessions. Some participants explained that despite knowing that anyone could learn through

hard work and effort, struggles and difficulties made them feel frustrated and considering giving up their dreams. Therefore, the sessions made them have hope and excitement to learn English again. These students' experiences also reflect how mindsets can change according to the circumstances and over time (see Lou & Noels, 2019). For this reason, teachers and the school environment must continuously support growth mindsets.

Also, some students reported that their beliefs had not changed as they already knew the information of the sessions (see section 4.5.2.2.2). However, some of them explained that they enjoyed the materials and admitted that the sessions would be helpful for people with fixed language mindsets. Some other students were happy to be reminded of the sessions' contents, and others argued that the sessions encouraged them to start learning a third language. This shows that the sessions had a positive effect on most students, which has been reported in previous research (e.g. Foliano et al., 2019).

Qualitative data also showed that only one student reported having a fixed mindset concerning the age people could learn (see section 4.5.2.1.2). Fortunately, this student changed his mind after session 8, which demonstrated through scientific evidence and famous people's stories that people can learn a new language at any age. This finding shows that the session that aimed to clarify age-sensitivity beliefs was successful in changing incorrect beliefs.

Finally, three participants doubted the growth language mindset theory on a few occasions (see section 4.5.2.3). For example, Natalia expressed that it was not easy to follow all the recommendations of the lesson. Paula explained that it was okay not to be good at something, as one might be good at something else. Olivia explained that people with mental disabilities might not benefit from this theory.

These objections or uncertainties related to the growth mindset theory could be better explained in future sessions or interventions to change students' mindsets. Some students might feel overwhelmed by all the recommendations, so they can be incorporated progressively and supported by an example of a year plan to develop growth mindsets. Also, it could be better explained to students that it is possible that people seem to have a "talent" for certain abilities, but it does not mean that they cannot develop other areas of knowledge. Learning a new language is a skill that all people can learn if they work hard. According to Hawkins (2018), "given the right opportunities and sufficient time, good levels of communicative ability in an L2 can be achieved" (p.3). It should also be clarified that the existing studies have been conducted with people with no mental disabilities, so the effects of growth mindset on these people are unknown. It might be worth considering exceptional cases in which people with specific disabilities might not be able to learn a new language.

5.5.2 Comparison With Other Studies Aiming to Change Participants' Mindsets

The positive result of these growth-mindset online sessions is similar to some previous studies that have taught students about the growth mindset theory and have measured whether their mindsets changed (using pre-and post-tests about their mindsets or theories of intelligence). Nonetheless, it is important to highlight that the methodology of those investigations is different from the one adopted in the present study, as all of them were experimental in nature and therefore had at least an intervention and a control group to test the difference in the impact of teaching some growth mindset concepts (in the present study, all students received the same sessions and pre-and post-tests were compared). Besides, interventions in which one of the aims was to change students' mindsets used different materials and procedures. For example, some studies (e.g. Blackwell et al., 2007) only focused on brain malleability; while others included

other elements, such as reflection (Aronson et al., 2002) and strategies to overcome difficulties (Yeager et al., 2016) (see more detailed information in section 2.4).

In the language learning field, only Lou and Noels (2016) have conducted an intervention to change individuals' language mindsets (for detailed information, see section 2.4.3). Therefore, Lou and Noels' (2016) research can be most closely compared with the intervention conducted in this study. The aim and the instrument to assess language mindsets (LMI) were the same. However, Lou and Noels's (2016) intervention spanned one session (versus 12 in the present study) and focused exclusively on language intelligence (GLB, L2B and ASB) to modify the participants' mindsets. The post-test results were successful, but long-term effects were not tested by Lou and Noels (2016); thus, the effect duration of this one-hour session on language intelligence could not be assessed.

Blackwell et al. (2007) manipulated 7th-grade students' mindsets by teaching about brain malleability. Similarly to the findings of the present investigation, the results of Blackwell et al.'s (2007) intervention showed that four sessions on the malleability of intelligence were enough to change the students' mindsets right after the manipulation. However, the prolonged effects of the sessions cannot be compared equally as in Blackwell et al.'s (2007) study, the last theory of intelligence measure was taken three weeks after the end of the last session, and in the present study, the last measure was taken three months after the last session. Therefore, it is not possible to conclude whether a shorter intervention (4 hours versus 1 hour and 40 minutes) with fewer contents (12 topics versus 1 topic) can have the same prolonged effects on students' mindsets.

Aronson et al. (2002) designed a different study to test the effects of the growth mindset theory. Their participants were divided into malleable pen-pal condition, control pen-pal

condition, and no pen-pal condition (see section 2.4.1). Students in the malleable condition not only learned about brain malleability (as in Blackwell et al.'s. 2007 study), but also needed to reflect on it to advise students facing academic difficulties to get good outcomes. Results showed that the intervention was beneficial for the African American students who participated in the malleable pen-pal condition. They got the highest scores in items related to the theory of intelligence in the short- and long-term measures, which means they view intelligence as malleable, and the effect persisted over time (long-term measures were taken approximately nine weeks after the end of the intervention).

Aronson et al.'s (2002) 3-hour intervention, which included brain malleability and reflection upon it, lasted twenty-five per cent less than the investigation of this study, had fewer contents than the ones presented in the twelve online sessions, and the long-term test was taken three weeks earlier than this study. Despite these differences, participants in the malleable pen-pal condition in Aronson et al.'s (2002) study got higher theory of intelligence scores in post-test and sustained effects in the long-term measures than participants in the other two conditions. Nonetheless, the intervention did not equally impact all the students in the malleable condition as it was only beneficial for African American students. Comparing the results obtained by Aronson et al. (2002) with the study reported in this thesis makes two different scenarios possible. At first impression, it looks like the contents of this study might be more potent at changing students' mindsets as the sessions were beneficial for almost all the students (86%). Nonetheless, it is important to highlight that in this study, all the students had the same background; therefore, it was impossible to compare them. Another reason that might explain why the students in this investigation obtained significantly higher scores is that they were Latinos, who, like African Americans, have also been stereotyped and discriminated (Pew Research Center, 2018).

However, racial discriminations usually occur when individuals live in places where residents have a different racial ethnicity (e.g. African American or Latinos living in the USA). As the participants of the current study were not living overseas, it is more likely that the contents and activities of the online sessions might be more helpful in changing students' mindsets.

Sriram (2014) also conducted an intervention to examine whether growth mindset could change college students' mindsets (and effort and achievement). Participants in the treatment group learned about the malleability of the brain in 4 sessions of 15 minutes each and obtained significantly higher mindset scores in the post-tests than students in the control group. Sriram's (2014) study did not include delayed post-tests, so it is not possible to know if the results were maintained in time.

Paunesku et al. (2015), in their experiment, demonstrated that a single online 45-minute session, in which students read an article about brain malleability, summarised the information and wrote a letter advising a student struggling at school (see Aronson et al., 2002), was effective in changing the mindsets of the students in the growth mindset intervention group. The results of the post-test in Paunesku et al.'s (2015) study look very encouraging and positive as they changed students' mindsets. However, they did not include further measures to assess whether the 45-minute session had a prolonged effect on the participants, so comparing long-term effects was not possible.

Donohoe et al. (2012) also conducted an intervention to change students' mindsets. Students in the intervention group completed the Brainology programme, and students in the control group continued with standard classes. Students in the treatment group significantly enhanced their mindsets in the post-test; however, the scores diminished in the follow-up test. The materials and procedures in Donohoe et al. (2012) and the present study were somehow

similar. Donohoe et al. (2012) did not mention the contents of the Brainology programme. The official page of this programme (Mindset Works, n.d.) explains that Brainology was designed to teach students that intelligence and abilities can grow through effort. The page also mentions that the programme is fun and interactive and shows how the brain functions, learns and becomes stronger with hard work. It also includes more crucial non-cognitive skills, such as healthy habits, study techniques and self-regulation strategies to help students be successful learners. Although the current description of the programme could differ from the one used years ago when this study took place, the contents are also similar to the ones in the study (described in detail in chapter 3). Donohoe et al. (2012) explained that the online Brainology programme consisted of around 160 minutes, while the 12 online sessions in MoodleX to develop growth language mindsets took approximately 240 minutes. Therefore, the MoodleX sessions took 80 minutes longer than the Brainology programme. Similarly to the Brainology program, the MoodleX sessions also included comprehension questions to assess students' understanding at the end of each session. In this study, similarly to Donohoe et al.'s (2012) study, students took the post-test right after the intervention and the delayed post-test three months after. The Brainology and MoodleX programmes were effective in increasing students' mindsets right after the sessions. Nonetheless, after three months, the effects of Brainology did not sustain in time. Instead, the MoodleX programme successfully maintained the impact of the sessions three months after students had completed them.

Yeager et al. (2016) designed and tested new methodologies to improve the growth mindset interventions. The new intervention included emphasising not only hard work but also using new strategies to overcome difficulties, examples of older peers with growth mindsets and more chances to express their opinions (for detailed information, see section 2.6.4.2). The

upgraded mindset intervention created by Yeager et al. (2016) and also tested in Yeager et al.'s (2019) study was more successful in changing the students' mindsets than previous mindset interventions. The contents of this revised online growth mindset intervention are more similar to those in the twelve online sessions to promote growth mindsets, but the time that students spent on them was shorter (50 minutes versus 4 hours, respectively). The post-tests of these experiments showed positive results as did the findings of the present research. Nonetheless, once again, these studies did not test prolonged effects; thus, it is impossible to compare them with the current study.

Rienzo et al. (2015) also examined whether teaching about growth mindsets could modify students' mindsets. One intervention was performed on students directly, in which students in the treatment group received ten growth mindset sessions, including the importance of effort and discovering learning strategies (see section 2.6.5 for detailed information). The other intervention was applied to teachers. In the intervention group, they received instruction to promote growth mindsets in the students. Rienzo et al. (2015) reported that only those students who were eligible for FSM and, at the same time, whose teachers had participated in the growth mindset course increased their mindset scores in all those interventions. The direct intervention with students was somehow similar to the one conducted in this investigation. Although the length was shorter (10 versus 12 sessions), fewer contents were taught, which might explain why the sessions were unsuccessful. However, according to Rienzo et al. (2015), the motive for these ineffective interventions might be that both groups (i.e. control and treatment) already knew about the growth mindset theory.

5.6 RQ 4b: Growth Mindset Sessions and Changes in Students' L2 Motivation

5.6.1 Growth Language Mindset Sessions Can Boost L2 Motivation in the Short-Term

Quantitative data showed that the online sessions to promote growth mindsets (see the full description of the sessions in section 5.5.1) successfully improved students' L2 motivation in the short term. The motivation instrument evaluated the aspects of the L2MSS questionnaire: the Ideal L2 self, the Ought-to L2 self, and Attitudes to learning English. Qualitative data confirmed that the students' L2 motivation was mainly related to aspects of the Ideal L2 self and Attitudes to learning English. None of the participants mentioned that they wanted to learn a new language as an obligation to please someone else, which is related to the Ought-to L2 self dimension (see section 5.2.2 for more information about this construct). Students' answers in their diaries enabled the understanding of their L2 motivation in detail, such as what drives their L2 motivation and what aspects of the sessions to develop growth mindsets increased their motivation to learn languages.

The codes grouped in the theme *The Ideal L2 self drives students' motivation to learn English* showed the aspirations the students would like to fulfil in the future (more detailed information can be found in section 4.6.2.1). The most popular code in this section (and in the whole questionnaire) was related to future opportunities, such as studying, travelling and working abroad. The next code was related to more social aspects, such as talking to people from other countries and learning from different cultures. Finally, the last code was English improvement for future entertainment purposes. Without a doubt, all these projections of themselves show that their L2 motivation concerns how they project themselves in the future. This is in agreement with quantitative data results (see Table 20) and previous research that

suggests that the Ideal L2 self is a strong variable that contributes to motivation (e.g. Papi and Teimouri, 2012; Taguchi et al., 2009).

The second theme, *Attitudes to learning English drive students' motivation to learn English,* shows that students enjoy their current L2 learning experiences. In the L2MSS questionnaire, the Attitudes to learning English theme refers to the enjoyment of learning a new language, using words such as 'great', 'enjoy' and 'interesting'; all the statements referred to learning English or English classes. In the diary entry answers, the students used many other words and provided more details to explain what they liked about learning English (which could be related to 'great', 'enjoy' or 'interesting'). In summary, students expressed that they liked realising that they are making progress in English, the challenge of learning English, communicating with others, and the fact that there are many ways in which they could learn it. Also, they find English a beautiful and useful language. These results are also aligned with quantitative results (see Table 20) and research (e.g. Lamb, 2012; Teimouri, 2017) that found L2 learning experience to be a strong predictor of the L2MSS Q.

Students also specified how the sessions were useful in increasing their L2 motivation. They found that the sessions included helpful and enjoyable content and activities. Most of these comments were in relation to sessions 1 to 6. Also, students mentioned that mainly sessions 4, 5 and 6 included motivating activities. As most students found particularly helpful, enjoyable and motivating the contents and activities between sessions 1 to 6, this information can be useful to update and enhance the last six sessions in MoodleX with more enjoyable materials.

The sessions helped boost the language learning motivation of some of the students who already had a growth mindset before the sessions and the ones who changed their beliefs due to the sessions (for more details, see section 4.6.2.3.3). This suggests that even growth mindset

oriented individuals need to be reminded about growth mindset topics as this can enhance their motivation. In fact, this might explain why some growth mindset studies have not found relationships between mindsets and other variables, such as achievement at the base point (without intervention). Still, they have found a relationship between mindsets and other variables after the intervention (e.g. Blackwell et al., 2007). This suggests that a growth mindset should always be promoted and be, for example, part of the class routine, as students seem to forget about its benefits.

Although this was not the main objective of the sessions, some students explained that the sessions had been helpful in facilitating their English development. The sessions were designed in English at an A2 English level, considering the Chilean students' English proficiency (see section 3.6.4). Therefore, the sessions included information and activities (e.g. pictures, definitions, examples, transcripts of audiovisual material) to facilitate understanding of the growth mindset contents. This shows that it is possible to address two aims in the English classes: developing growth mindsets and contributing to English language development. Both are the main aims in Chapter 3 of the book "Psychology in Practice" by Williams et al. (2021), created after these sessions were designed and put into practice.

The sessions helped some students to become more autonomous learners. These students said that the sessions were helpful as they started challenging themselves by trying more difficult things and changing their study habits. This shows that the sessions might have increased students' motivation and, in the end, helped them to develop some autonomy. This has been found in other investigations too. For example, Wang et al. (2021) discovered that growth mindset individuals only predicted higher engagement (maths) when they had metacognitive skills, which enabled them to reflect and be conscious of their learning (see more information in

section 2.7.5.2). This suggests that growth mindset learners should develop metacognitive skills, such as goal setting, planning and organization and self-evaluation to take advantage of their growth oriented mindsets. These sessions were designed considering all experts' recommendations. Mercer and Ryan (2010) emphasised that students' effort is successful when they know strategies to enhance their abilities. Also, Williams et al. (2015) highlighted that once learners believe they can learn a new language, they need to know how to do it, which involves knowledge about strategies. The sessions intended to show students that language ability can increase and that anyone at any age and place can learn a new language. Also, the sessions explained how students could expand their intelligence by asking questions, learning from mistakes, challenging themselves and proposing challenging goals. Finally, the sessions showed strategies for improving different language learning domains. All this information might have helped the students to develop their metacognitive skills to plan, monitor and assess their learning and become autonomous learners.

To test whether the students' motivation was sustained over time, students answered the L2 motivation questionnaire three months after the sessions to promote growth mindsets. Results showed that the effects were not kept for too long. The students' L2 motivation seemed to increase only while participating in the twelve sessions. One reason might be that other factors affected their motivation, including the COVID-19 pandemic. Also, considering that students who already had a growth mindset before the sessions increased their L2 motivation while doing the sessions (see section 4.6.2.3.3), it can be suggested that the development of a growth mindset should be continuous to help students to remain motivated.

5.6.2 Comparison With Other Studies Aiming to Change Participants' Motivation

No other studies have examined whether sessions to promote a growth language mindset can influence L2 motivation. Nonetheless, some growth mindset studies concerning other knowledge areas have analysed whether growth mindset content impacts motivation and other psychological constructs. For example, Blackwell et al. (2007, study 2) qualitatively investigated whether students who had attended the growth mindset theory had improved their motivation after the sessions (compared to the students in the control condition) by asking some questions to their maths teachers (see detailed information in section 2.5.5). Results showed that students who attended the experimental condition increased their motivation much more than the ones in the control group (27% versus 9%, respectively).

Sriram (2014), who also conducted an experiment to test the effectiveness of a mindset intervention, found that participants in the incremental condition got significantly higher levels of academic effort than students in the control group (see section 2.5.5 for more information). Yeager et al. (2016) also examined whether the revised growth mindset intervention could improve other psychological measures (for detailed information, see section 2.5.5). Results revealed that students in the treatment group successfully enhanced their challenge-seeking behaviour, attributions and goals compared to control groups.

Jennings and Cuevas (2021) examined whether growth mindsets could influence motivation using an SES (see more information in section 2.5.1) in the USA. In the results, they did not report exclusively on motivation changes. Instead, they reported that there was an association between students' gains in mindsets and their motivation levels in school. Therefore, it can be inferred that the sessions to promote growth mindsets increased participants' mindsets

and motivation (school engagement). Nonetheless, it was not reported, for example, whether improvements in motivation were significant.

Investigations that have examined the mindset-motivation relationship have mainly analysed the relationship between these two variables (e.g. study 1 in Blackwell et al., 2007; Cacali, 2019), sometimes after an intervention or sessions to promote growth mindsets (e.g. Jennings & Cuevas, 2021; Lou & Noels, 2016). Only a few of them have tested whether sessions or activities to develop a growth mindset have influenced students' motivation by comparing pre-and post-motivation behaviour (e.g. pre-and post-questionnaires). The results of these investigations have been positive (e.g. study 2 in Blackwell et al., 2007; Yeager et al., 2016). However, the methodology did not consider testing whether the increased motivation had a sustained effect in time as they only used immediate-post-tests (probably because those studies focused on achievement).

The results of the current study cannot be compared with similar studies in the language learning field due to scarce research. It is possible to compare these findings with studies that performed an intervention to promote growth mindsets (not language mindsets) and assessed motivation or motivational variables (not L2 motivation) before and after the mindset manipulation. Therefore, it could be argued that by comparing the pre-and post-motivational questionnaires (i.e. L2MSS Q1 and L2MSS Q2) and qualitative data, the twelve online sessions to develop growth mindsets were successful in increasing students' motivation as other studies that also measured immediate post effects (e.g. study 2 in Blackwell et al., 2007; Yeager et al., 2016). However, the present study also assessed the prolonged effect of the growth mindset sessions three months after the end of the sessions, and the results showed that the motivation

decreased. The L2 motivation was not sustained in time, which means that the students' L2 motivation only increased while participating in the growth mindset sessions.

This finding can have different interpretations. One possible explanation is that other factors (not only mindsets) influence motivation, which is consistent with some previous research. For example, Dweck and Yeager (2019) highlight that different meaning-making systems can influence students' motivation (and engagement, responses to challenges and, finally, academic achievement). The other explanation is that to ensure increased motivation, the growth mindset theory should not be taught only a few times but instead be embedded in all lessons. Indeed, the most up-to-date research in the growth mindset field suggests supporting growth mindsets not only at the classroom level but recommends creating growth mindset school cultures. Dweck and Yeager (2021) highlight that investigations have shown that the positive effects of the growth mindset interventions rely upon whether the classroom culture can provide students with a proper environment to put into practice and take advantage of the growth mindset theory. Murphy et al. (2021) highlight that in classrooms that provide a growth mindset culture, educators generate a consistent meaning system for learners' goals, beliefs, mindsets and behaviours. They also suggest that the creation of successful growth mindset cultures might prompt motivation (and learning) in educational settings (see more information in section 5.7.5).

5.7 RQ5: Growth-Mindset Oriented Online Lessons and Changes in L2 Academic Achievement.

5.7.1 This study: Improved Academic Achievement is Possible When the Growth Mindset Theory is Embedded in the Classes

This study also conducted English lessons with a growth mindset orientation to assess whether they could improve English academic achievement. As mentioned in section 3.2, the

methodology of this study suffered many changes due to the COVID-19 contingency plan. In the first instance, the idea was to explore this topic in schools with around 300 students and 8 teachers. Nonetheless, just when this investigation was about to start, face-to-face classes were suspended, and only students who were lucky enough to have a laptop, tablet, or mobile phone and internet connection at home continued attending classes remotely. Also, teachers were overwhelmed at that moment trying to adjust their learning programmes and teaching in a completely new format. After all these inconveniences in finding participants, the study carried on with 20 secondary school students from Chile, but only 7 completed all the activities. Many students dropped out of the online English lessons as they faced financial and technological difficulties (e.g. broken laptops and no internet connection). Seven students completed all the activities, which allowed me to assess whether the online classes with a growth mindset orientation could help improve their outcomes.

Students' participation was voluntary. They took pre-and post-English tests that evaluated the four skills (standardised KETs), attended 24 growth-mindset English online lessons, and completed some homework. The students dedicated about 30 hours to this online English course. The classes were given three times per week for two months. The design of this course was carefully constructed. Before designing the materials and activities, a survey was created to attract students so they could express their needs and what they wanted to learn regarding topics, skills, grammar and vocabulary. Some options were provided, and the lessons could also include other aspects of the language too if students so wished.

Once students chose their preferences, the planning of the 24 lessons started. The novelty of these online English classes was that at least one growth mindset aspect was included in every class (see appendix H). This information was included in the general plan and later in each of the

lesson plans. The growth mindset contents were integrated to match the organisation of the course and the specific contents or skills of the class, so that they were all related. For example, in the first class, students reviewed content to learn about the importance of growth mindsets, challenges and setting challenging goals. When the unit topic was "travelling", some incorrect language learning beliefs were clarified. For example, students understood that the only way to learn a new language successfully is by travelling to a country where that language is spoken. Also, the benefits of learning a language in a classroom were explained. Before or after providing students with constructive feedback, the importance of learning from mistakes was explained. Strategies to improve their learning were selected according to the skills students were developing in class (e.g. if the main skill was listening, before those activities, strategies to improve that specific ability were reviewed). Following this logic, the rest of the contents relevant to promoting growth mindsets were included in the lessons, such as brain malleability, the importance of effort and hard work, the power of the word "yet", how to deal with difficulties and clarification of general and specific language learning beliefs (e.g. pronunciation, writing). The materials to foster growth mindsets varied, including videos, PowerPoint presentations and handouts.

Planning was essential to include all the contents suggested in the course to develop growth language mindsets and integrate them into the lessons. In the lessons, the teacher (i.e. myself) praised the effort, celebrated mistakes, provided constructive feedback, used the word "yet" to explain to students that they would learn something later through hard work, and encouraged them to ask questions. Another key element in the classes was reflection. Students were asked to check their progress, assess their effort, use learning strategies, and if they had achieved their initial aims, they were urged to look for new ones. Most reflections were done

after class by the students. Those reflections were checked, clarifying misunderstandings regarding language learning beliefs. Also, ideas to continue improving and a final growth mindset message related to their progress (e.g. keep up the hard work, I am sure you can improve if you work hard) were added at the end of the students' reflections. Feedback was also essential. Written feedback was provided in all the pre-and post-tests and homework activities. Mistakes were corrected, and also suggestions for improving aspects they were struggling with were made. In the end, students' effort and progress were assessed, and a growth mindset comment was added (see feedback examples in appendices P, Z and AA).

Students engaged in the classes, worked hard, did homework and considered feedback to improve their English. From their written reflections, it is possible to see that they felt grateful and valued learning about the growth mindset theory as it helped them improve the target language (see section 4.7.2 and a relevant example in answer to question 4 in *Revision and evaluation of your SMART Goals* in appendix Q). Consistent with the students' enthusiasm, the results of this investigation showed that the online growth-mindset classes improved students' overall achievement and each of the four skills (i.e. reading, writing, speaking and listening). All the improvements were statistically significant, except for reading comprehension. Presumably, this skill was not as successfully developed as the remaining three during the 24 online lessons.

In the growth mindset oriented English lessons, students' metacognition might have developed too. As part of the programme to foster growth mindsets, students had to plan their goals and monitor and evaluate their own progress in every language learning skill. Therefore, students' metacognitive skills might have been cultivated and might have helped to improve English academic outcomes (and also other valuable pedagogical resources connected to the growth mindset theory, such as constructive feedback). Previous research (e.g. Wang et al.,

2021) has highlighted that growth mindsets and metacognitive skills together can predict engagement. This research suggests that metacognitive skills should be developed as part of the development of a growth mindset, as they may influence and improve students' motivation and achievement.

5.7.2 Successful Studies Often Improve the Academic Achievement of Students With Certain Characteristics

English classes with a growth-mindset orientation are an innovation which took into consideration previous studies aiming to enhance academic achievement by promoting students' growth mindsets. In all previous investigations, students' mindsets were manipulated during some of the sessions by teaching selected aspects of the growth mindset theory. However, none of them embedded the growth mindset concept in the lessons as the present investigation did.

Some previous studies have successfully improved the academic achievement of specific groups of students by teaching a few aspects of the growth mindset theory. For example, some interventions relied on teaching exclusively about brain malleability (e.g. Blackwell et al., 2007; Good et al., 2003). The results of these interventions were different among them. For example, Blackwell et al. (2007) reported that maths assessments taken after the intervention showed that students from the experimental condition improved their maths marks significantly. Whereas, Good et al. (2003) revealed that the intervention in the experimental conditions was successful academically for students with the following characteristics: female, minority and low-income (Good et al., 2003). Other interventions added writing exercises to advise students struggling at school (e.g. Aronson et al., 2002; Paunesku et al., 2015). The intervention conducted by Aronson et al. (2002) benefited African American students who participated in the malleable pen-pal condition, while in Paunesku et al. (2015), the growth mindset intervention was effective for

poor-performing students as it enhanced their academic achievement in core courses over one semester. The findings of these similar interventions vary in general, as different groups of students have benefited academically from endorsing growth mindsets. In most interventions, disadvantaged students improved their academic achievement after learning about brain malleability.

Yeager et al. (2016) aimed to enhance the growth mindset interventions and experimented with over 3,000 participants in the pilot study, 7,501 in study 1 and 3,676 in study 2 (see section 2.6.4.2). Even though some important changes were performed to the original mindset programme (e.g. including more visual input, students' reflection, more significant examples for the participants and the importance of learning strategies), the benefits (i.e. improved academic achievement) were still substantial, mainly for lowest-performing students. Later, Yeager et al. (2019), using the same methodology as Yeager et al.'s (2016) study with 12,490 9^{th}-grade students in the USA, found the same results: lower-achieving students got higher marks after the mindset intervention.

The content and activities of this revised mindset intervention (Yeager et al., 2016, 2019) are more similar to the ones used in the present study (i.e. lessons with a growth-mindset orientation); however, their length was considerably different (2 versus 24 sessions). Yeager et al.'s (2019) findings showed that the lower-achieving students surrounded by growth mindset messages and ideas at school improved more, academically speaking. Yeager et al. (2019) suggest that sustained change might need a growth mindset intervention in collaboration with a school context that supports the same growth mindset view for learning. This recommendation is related to the findings of this investigation. The growth mindset messages were learned and supported in every lesson, which turned into academic achievement improvement.

In their second meta-analysis, Sisk et al. (2018) researched the effectiveness of mindset interventions and their potential moderators in 43 studies with 57,155 participants in total (see section 2.6.4.2). This meta-analysis first shows that interventions to promote growth mindsets could be more useful for students from low socioeconomic sectors and academically at-risk students. Intervention modalities that ended up being more efficient were only a few, including active interventions that required the participants to do something with the information, activities that included reading materials and were conducted outside the classroom, and interventions that presented only post-results. Altogether, this meta-analysis demonstrated that, in general, growth mindset interventions—irrespective of the intervention mode—mainly benefited financially and academically disadvantaged students.

5.7.3 Some Mindset Interventions Have Not Successfully Improved Achievement

Some growth mindset interventions have not positively affected students' academic achievement (for detailed information about unsuccessful studies, see section 2.6.5). For example, Jennings and Cuevas (2021) conducted a study with 95 seventh-grade students in the USA. After eight 15-minute sessions, students' mindsets gains were not associated with social studies attainment gains. Similarly, Sriram (2014) reported that four 15-minute growth mindset sessions were ineffective in improving 60 university students' GPAs in the USA compared to the 45 students in the control group (105 participants in total). Sriram (2014) suggests that maybe the results were not successful due to the short length of the investigation (i.e. 60 minutes) compared to other studies, such as Blackwell et al. (2007) (200 minutes) and Aronson et al. (2002) (180 minutes).

Besides, other unsuccessful studies have been reported in the United Kingdom. For instance, Donohoe et al. (2012) analysed the long-term effects of four sessions of the Brainology

programme with students in Scotland. They found that the sessions did not influence students' academic achievement in the intervention group compared with the participants in the control group one year later; therefore, they suggested that further research should consider working on how to maintain the effects of growth mindset interventions. Rienzo et al. (2015) also investigated the effects of growth mindsets on academic achievement in the UK. First, 286 year-five students participated in this study; some of them were part of the treatment group and received sessions to promote growth mindsets. Also, teachers of 1,505 students participated in an intervention, and teachers in the intervention group learned about the growth mindset theory and how to put it into practice in the classrooms. The results obtained ten months after these interventions took place showed that there were no significant differences in the academic outcomes (maths and English) between the treatment and control groups. This means that neither the direct growth mindset sessions that students received nor teachers' professional development intervention could produce a long-term effect on students' academic achievement.

Later, Foliano et al. (2019) performed a new study with more participants (5,018 Year 6 students from 101 schools) in the UK, in which the intervention group of students not only received sessions to promote their growth mindsets but also their teachers received formal training to support those mindsets in the schools all the time. Nonetheless, the results did not show an academic improvement (in literacy and numeracy) among students in the intervention group compared to the control group. Foliano et al. (2019) acknowledge that this trial's results differed from the outcomes in Carol Dweck and her co-authors' investigations. This project highlighted that one reason why the experiment did not help students who received the growth mindset intervention might be that the programme was not delivered as predetermined or it was not long enough to help students understand the message, change their behaviours and attitudes,

and impact their performance. Also, they point out that result effects might have been diminished as teachers in the control groups were previously familiar with the growth mindset approach. Finally, they explained that the age of the participants might be another explanation, as older children might be better at using this approach and improving performance. Although the manipulation did not produce positive effects on students' attainment, the programme was well accepted by the school community (teachers and students). Teachers noticed students' changes in their attitudes, perseverance and enthusiasm. In fact, some schools planned to continue working with this approach in the whole school, including younger students and in collaboration with parents.

5.7.4 Teachers Can Make a Difference in the Development of a Growth Mindset and Its Impact on Academic Achievement

Recent investigations (e.g. Claro et al., 2021; Yeager et al., 2022) have shown that teachers' mindsets can influence students' academic achievement (see detailed information in section 2.7.2). These findings are supported by PISA 2018 results, which revealed that educators' teaching practices moderate the relationship between growth mindset and academic achievement. On average, across OECD countries, students with a growth mindset obtain higher scores than individuals with a fixed mindset; moreover, this difference is boosted when educators present a greater support level, adaptive instructions or feedback (Gouëdard, 2021b). These investigations suggest that students might need contextual support to establish and develop their incremental beliefs to preserve the effects of growth mindsets.

However, as explained above, studies developed in the UK (Foliano et al., 2019; Rienzo et al., 2015) have shown that teachers who have received formal training to promote growth mindsets were unable to improve their students' academic achievement. These studies did not

assess teachers' mindsets; therefore, it might be the case that teachers in the control group already had growth mindsets and knowledge on how to promote them. Another plausible explanation is that growth mindset interventions do not benefit students' academic achievement in the UK due to cultural issues. Dweck and Yeager (2019) state that the mindset environment is not yet fully explored, as interventions have been mainly directed at students. For this reason, to know more about the growth mindset concept and ways to improve learning and motivation, it is necessary that educators and other school leaders should create environments in which challenges are welcomed, mistakes are not penalised, there is collaboration to create successful learning strategies, and each person's talents are profoundly appreciated and eagerly developed.

5.7.5 New Directions in Growth Mindset Research

Dweck and Yeager (2019) emphasise that everything that has been learned during 45 years of mindset research is only the base for future research. Some questions that need to be answered concern best practices to spread growth mindsets, how contexts impact learners' adoption and application of growth mindsets, and how growth mindsets in educational institutions can be supported. Dweck and Yeager (2021) highlight that growth mindset interventions that have shown a positive effect on students depend on whether the classroom culture provides opportunities for students to develop growth mindsets. Therefore, they initiated "The Global Mindset Initiative" to support educators in establishing a growth mindset culture in classrooms.

Murphy et al. (2021) claim that teachers can collaborate to transform classroom cultures. This might facilitate understandings of why mindset interventions have different outcomes and contribute to identifying more successful and tenable interventions. Most current interventions concentrate on changing students' mindsets; nonetheless, plenty of school messages are in

conflict with the essential principles of a growth mindset, which could hinder the beneficial effects of students' individual interventions. Conversely, interventions that prepare teachers to develop a growth mindset classroom culture (e.g. fostering growth mindset beliefs and putting into action routines and policies that cooperate and uphold growth mindset behaviours and beliefs) can possibly improve individuals' motivation, engagement and performance in the long term.

In the language learning field, Lou et al. (2021) highlight that as multiple constructs predict students' engagement and achievement, it might be worth asking learners to reflect on different elements of the growth mindset system. They suggest including other associated constructs (e.g. positive responses to challenges and mastery goals) as they might trigger more captivating learning experiences and greater proficiency. They propose that interventions should consider teaching not only what growth mindsets are about (e.g. effort leads to success), but also including how to put those aspects into practice (e.g. advise learners on how to establish mastery goals). The English lessons with a growth mindset orientation considered different elements of the growth mindset theory and language learning beliefs (see section 5.7.1), which potentially helped maximise students' motivation and achievement.

Murphy et al. (2021) proposed four categories of teacher practices that transmit a growth mindset supportive classroom culture: 1) Inclusive Classroom Environments Tuned to Learning (inclusion), 2) Organization and Classroom Management (framing and learning strategies), 3) Supportive Instruction and Assessment (responses to challenges and mistakes, feedback, assessment), 4) Planning and Preparation (pre-term planning, ongoing reflection). The online English lessons with a growth-mindset orientation developed three of the four categories suggested by Murphy et al. (2021) to create growth mindset classroom cultures. The first

category (Inclusive Classroom Environments Tuned to Learning) was not developed in these growth mindset oriented lessons. Nonetheless, all the other three categories were developed before the lessons (e.g. planning the whole course and each of the lessons emphasising the development of growth language mindsets), at the moment of teaching (e.g. setting challenging aims, emphasising the importance and value of mistakes, providing feedback, praise) and after the lessons (e.g. reflection and providing growth-mindset comments on students' homework).

Murphy et al.'s (2021) study was published after all these English lessons were designed and conducted (i.e. 2020). Therefore, first, it can be confirmed that the English classes with a growth-mindset orientation were developed and put into practice following all previous existing recommendations (e.g. Dweck, 1996, 1999, 2008, 2010, 2015, 2017; Lou, 2014; Lou et al., 2017; Lou and Noels, 2016, 2017a, 2017b, 2019, 2020; Mercer & Ryan 2010; Mindset Works, n.d.; Noels & Lou 2015; Oxford, 2011; Ryan & Mercer, 2011, 2012; Williams et al., 2015). Second, due to the successful results of this investigation, it can be established that Murphy et al.'s (2021) proposal seems adequate for generating growth-mindset classroom cultures. Murphy et al.'s (2021) proposition was to create and support students' general growth mindsets; however, the present study focuses on developing individuals' growth language learning mindsets. Therefore, the present study can serve as an example to help language teachers foster and support growth language learning mindsets in their classes throughout the school year. This will be explained in detail in the pedagogical implications in section 5.8.

5.8 Pedagogical Implications

5.8.1 Introduction

This study demonstrates that it is possible to promote students' growth language mindsets and, in turn, improve their L2 motivation and English academic achievement by following

relevant research suggestions (e.g. Dweck, 2015, 2017; Lou & Noels, 2016, 2017, 2019, 2020; Mercer & Ryan, 2010, 2012). Recommendations concerning the development of general growth mindsets and growth language learning mindsets were carefully considered to rigorously design the contents, activities and strategies to foster growth language mindset on MoodleX and in the English lessons. These activities and practices are used to offer guidance to facilitate the development of growth language mindsets in classrooms.

Students' growth mindset needs to be not only fostered but also supported (Dweck & Yeager, 2021; Murphy et al., 2021). All the activities and materials designed in this investigation can serve as a guide to promote and support growth mindsets in language learning classrooms. Up-to-date research emphasises that further studies should concentrate on developing growth mindset classroom cultures (e.g. Dweck & Yeager, 2021; Murphy et al., 2021). These classroom cultures aim to normalise and instil growth mindset beliefs and performances into daily routines and interactions to eventually contribute to higher academic achievement and equity (Murphy et al., 2021). Considering the positive results of this investigation and the need to create growth mindset classroom cultures, this study's materials and activities to promote growth language mindsets and the research behind them have been organised to contribute to the development of these cultures.

This guide concentrates on strategies that can be used in the planning and teaching stages, which were applied and proven successful in this research. The first set of recommendations are helpful for planning and preparation, and the rest can be used while teaching in daily interactions with students. Some background information about the growth mindset theory is provided to better understand the theory underlying the specific topics. Later, classroom examples show how

theory can be put into practice. Finally, some activities (taken from the present research) are included in the appendices to provide more concrete examples.

5.8.2 Guideline to Facilitate the Development of Growth Language Mindset Cultures in Classrooms

5.8.2.1 Before the Lesson.

5.8.2.1.1 Design a Growth Mindset Oriented Lesson Plan.

Growth Mindset Research. Mindsets can vary over time and across situations (Lou & Noels, 2019; Mercer & Ryan, 2010). Thus, teachers should continuously help students develop growth language mindsets. Teachers should choose and design materials, practices and assessments to achieve the course's aims and, at the same time, support the growth mindset theory throughout the school year (Murphy et al., 2021).

Classroom examples. The teacher can plan the whole school year considering the syllabus (if they have to follow one), students' English levels, interests, needs, and the development of students' growth language learning mindsets. The teacher can include at least one strategy to develop a growth language mindset in every lesson plan (see examples of strategies in section 5.8.2.3). The growth language mindset strategies can be related to the class topic, content, skill or students' needs. The teacher should design challenging activities so that students can put into practice the different aspects of the growth mindset theory (challenges are learning opportunities). Appendix H provides an example of a general plan, including growth language learning strategies.

5.8.2.2 At the Beginning of the Lessons.

5.8.2.2.1 Explain the Importance of Challenging Aims.

Growth Mindset Research. In language learning, challenges are imminent, and perseverance is fundamental (Lou & Noels, 2019). Teachers should introduce the lesson by explaining the aims and how the activities will help them progress (Murphy et al., 2021). Teachers should believe in students' improvement in each language learning domain by working hard and using proper strategies to succeed (Dweck, 2017; Mercer & Ryan, 2010).

Classroom examples. The teacher starts the lesson by presenting the aims of the lesson. The teacher tells students that they will challenge themselves in class, which is great for enhancing their language ability. The teacher reminds students of the importance of learning from mistakes, hard work, and not being afraid of asking questions. The online site of the company Mindset Works offers the growth mindset framing tool as a free resource, which contains some useful expressions to communicate learning goals and high expectations (see appendix P).

5.8.2.3 In-class Strategies for Promoting Growth Language Learning Mindsets.

5.8.2.3.1 Support Students in their Goal Setting.

Growth Mindset Research. People who believe that intelligence cannot be modified tend to choose simple goals which can be more easily achieved; on the contrary, individuals who believe that intelligence and abilities can improve by effort tend to choose more challenging goals to learn new things (Dweck, 1985, 2000; Lou & Noels, 2016, 2017a, 2020). Teachers should support students in their own goal setting and plan to achieve them (Dweck, 1999; Lou & Noels, 2019).

Classroom examples. At the beginning of the school year, the teacher asks students to set their goals and a plan to achieve them. Later in the year, the teacher asks students to revise their goals and reflect on their progress to see if they need to modify the strategies to achieve them or whether they need to set new challenging goals. The teacher supervises all these activities and provides feedback, including ideas to help students attain their goals. Appendix Q shows examples of goal setting activities and feedback. The teacher can also use goal quotes (see appendix R) in their classes to help students to set their own goals and challenges

5.8.2.3.2 Support Students' Mistakes and Difficulties.

Growth Mindset Research. Making mistakes is seen as a fundamental part of the learning process since it enables learners to expand their knowledge by experimenting with the language (Williams et al., 2015). Students need to know the importance of making mistakes (Dweck, 2008). Teachers should make students feel well by taking risks and making mistakes; therefore, teachers should react positively when students make mistakes (Lou & Noels, 2019). Whenever students say "they cannot do something", teachers can add the word "yet" at the end of a negative statement to explain that they cannot do something "yet", but they will be able to do it later by working hard (Dweck, 2017). If students make mistakes in quizzes or assignments, teachers can encourage them to correct those errors by providing them with additional points (Lou & Noels, 2019).

Classroom examples. The teacher establishes that mistakes and difficulties are part of language learning and encourages students not to be afraid of them but embrace them and help them to overcome them. Therefore, the teacher uses it as a learning opportunity whenever students make a mistake. For example, after an assessment and receiving the teacher's feedback, the teacher can ask students to reflect on their mistakes, ask how they feel about them, and invite

them to identify what they are doing wrong and what they can do to overcome those difficulties. The teacher can also emphasise that they have not learned something "yet," but they can learn it with effort and hard work. For example, if a student says, "I don't understand the phrasal verbs", the teacher should reply, "You don't understand the phrasal verbs *yet*". Also, teachers can offer extra points to students who correct their mistakes in assignments or tests. Some materials that can be used or adapted to facilitate reflections can be videos, songs, movies, pieces of news, poems and quotes that show that making mistakes is helpful (see appendix S).

5.8.2.3.3 Explain the Benefits of Brain Malleability.

Growth Mindset Research. Language learning mindsets are related to beliefs that general language ability, language learning ability and age play a role in language learning. Therefore, it is crucial that students learn about the malleability of the brain so they can get convinced through scientific evidence that language ability can increase. Dweck (2008) and Lou and Noels (2016) suggest teaching the new science of brain plasticity. In fact, successful interventions that aimed to change mindsets have taught about the malleability of the brain (e.g. Aronson et al., 2002; Blackwell et al., 2007; Good et al., 2003; Lou & Noels, 2016; Paunesku et al., 2015; Yeager et al., 2016).

Classroom example. The teacher might share information on how the brain develops when trying challenging things. It is possible to use articles or videos that explain that intelligence can grow through hard work and challenges. Videos, reading comprehension tasks, writing assignments and discussions can help students understand scientific facts about the brain's malleability (see appendix T).

5.8.2.3.4 Provide Opportunities to Develop Language Learning Strategies.

Growth Mindset Research. Teachers need to understand that hard work and effort might not be sufficient and that they need to provide students with language learning strategies and tools to help them learn a new language. It is incorrect to believe that growth mindset is only related to effort (Dweck, 2015). Teachers should not overestimate effort and think it can easily and quickly increase language ability (Lou & Noels, 2019). It is vital that teachers look for the reasons why the effort is not productive so that they can guide and provide students with new strategies and tools to help them in the learning process (Dweck, 2017). Learners should experiment with different strategies, and they need to ask for help when necessary to be able to learn and improve (Dweck, 2015). Students' effort is effective as long as they know the proper strategies to improve their abilities (Mercer & Ryan, 2010). Hence, teachers should praise students' hard work and effort as well as provide students with tools, techniques and language learning strategies so that effort can initiate improvement.

Classroom examples: Considering the skill/contents of the class, the teacher can ask students to share their strategies for improving that specific language learning domain and show some strategies that can be implemented during the lesson to facilitate learning. Also, the teacher can teach students different strategies to improve skills to develop their reading comprehension, listening comprehension, writing, speaking, grammar, vocabulary and pronunciation. The skills should be related to the skills and content of the class. For example, if students should answer reading comprehension questions, the teacher could teach relevant strategies, such as predicting, scanning and skimming (see appendix U). The teacher should encourage students to seek help and not be afraid to ask questions (see appendix V). On the online site of the company Mindset

Works, the growth mindset framing tool contains some useful expressions to use with students who need more strategies (see appendix W).

5.8.2.3.5 Discover Students' Language Learning Mindsets.

EFL teachers should discuss with second language learners their beliefs about learning a new language to check whether these beliefs might prevent them from having a growth mindset and help them change their wrong conceptions (Mercer & Ryan, 2010). Individuals' mindsets can change with the passing of time and across circumstances (Lou & Noels, 2019). Thus, teachers should assess students' language learning beliefs at different intervals.

5.8.2.3.5.1 Beliefs Concerning General Language Ability, Language Learning Ability and Age Sensitivity.

Growth Mindset Research. To find out about language learning beliefs, Lou and Noels relied on Dweck's (1999) research on intelligence and maths ability, and Mercer and Ryan's (2010) and Ryan and Mercer's (2012) studies of language learners' beliefs (Lou & Noels, 2017a; Noels & Lou, 2015). They found three types of beliefs: Beliefs about general language ability (GLB), L2 aptitude (L2B) and age-sensitivity beliefs (ASB). These three types of beliefs need to be considered by teachers. Teachers might find students who believe that language ability and, more specifically, language aptitude is not able to change and grow or students that believe that a second language can only be learned during childhood (Mercer & Ryan, 2010).

Classroom example. The teacher includes activities to discuss general language beliefs, language learning beliefs and age-sensitivity beliefs in classes. For example, the teacher can ask students to answer a questionnaire about these beliefs and then discuss their answers and clarify their misunderstandings by providing scientific evidence that language ability and language

aptitude are able to change and grow at any point in individuals' lives. Teachers can show real examples of people who have learned a new language as adults (see appendices X and Y).

5.8.2.3.5.2 Beliefs Concerning the Learning Context.

Growth Mindset Research: Teachers might encounter learners who believe that for successful language acquisition, the effort is unnecessary because language acquisition occurs only through natural acquisition in foreign-speaking countries, and also, learners might think that learning a language in a classroom leads to just low language achievement (Mercer & Ryan, 2010). Teachers should discuss with students that even though going abroad is an excellent way to put into practice their English, it is not the only way to improve. There are plenty of opportunities to enhance language learning abilities by studying in classroom settings through conscious learning situations (Ryan & Mercer, 2011).

Classroom example. The teacher discusses with students their beliefs concerning learning a new language in classrooms of non-English speaking countries versus learning a new language in countries where the target language is spoken. The teacher can explain that learning a new language in a classroom is possible and avoid expressing that people need to go abroad to be successful language learners (see appendix Z).

5.8.2.3.5.3 Beliefs Concerning Specific Language Learning Domains.

Growth Mindset Research: Teachers should appreciate that students can have different mindsets for different language domains; therefore, educators should emphasise that all aspects of the language can change and improve by working hard (Mercer & Ryan, 2010). It is essential to be aware of students' beliefs about English language learning in general and other domains, such as L2 speaking, L2 punctuation and L2 listening comprehension.

Classroom example. The teacher asks students to reflect on each language learning domain (e.g. L2 writing, L2 reading comprehension, L2 vocabulary learning). This activity can start by asking students to think about how hard or easy the domain is for them, whether they believe they can improve in this domain, what factors they consider important to develop this domain, think how much effort they have put into improving that specific domain, and whether they have used any strategy to improve this domain. Later, students can reflect on all those points to write down a plan to improve this domain. Finally, the teacher should provide feedback on students' reflections to help them change their incorrect beliefs and reinforce their growth language mindsets. Also, considering students' answers, the teacher might provide some ideas to help them with new language learning strategies. See appendix AA for templates to reflect on language learning domains and feedback examples.

5.8.2.3.6 Promote Students' Reflection.

Growth Mindset Research. Research that created more successful growth mindset interventions not only presented growth mindset information (e.g. brain malleability), but participants also had to interact with this information by responding to some questions to fully understand how difficulties and challenges can help to enhance their learning and the importance of the growth mindset concept (Dweck & Yeager, 2019). A meta-analysis of mindset interventions revealed that when participants got involved with the materials (e.g. writing a reflection after reading a growth mindset passage) were significantly more effective in comparison with passive interventions (e.g. participants read about the growth mindset theory) (Sisk et al., 2018). Multiple constructs predict students' engagement and achievement; therefore, learners should reflect on various aspects of the growth mindset system, such as how to establish mastery goals (Lou et al., 2021). Reflection facilitates a better and deeper understanding; thus,

teachers can invite students to reflect on the growth language mindset information shown in class, including their own language learning mindsets.

Classroom examples. The teacher can ask students to comment on or give their own opinions about growth language mindset messages in class (e.g. the value of mistakes and hard work). The teacher can ask students to reflect on their language learning beliefs (L2 in general and specific language learning domains, such as pronunciation and writing), considering their effort, strategies and progress (see examples of reflection activities in appendices X, Y, Z, AA, Q).

5.8.2.3.7 Provide Feedback and Praise Considering the Growth Mindset Research.

Students can develop different mindsets explicitly in workshops and interventions and implicitly in everyday interactions in the classroom (Noels & Lou, 2015). Providing feedback is essential to developing growth mindsets (Dweck, 2008; Lou & Noels, 2019). Teachers' feedback in any form, such as praise, comments, actions or even silence, can affect learners' motivation (Williams & Burden, 1997). Teachers should provide students with constructive feedback to improve (Lou & Noels, 2019).

5.8.2.3.7.1 Praise the Effort.

Growth Mindset Research. Praise that associates accomplishments with effort contributes to learners internalising growth mindsets (Pomerantz & Kempner, 2013; Zarrinabadi et al., 2021). Teachers should praise the effort instead of the intelligence (Dweck, 1999, 2010, 2017). Carol Dweck's investigations (e.g. 2017) have demonstrated that when teachers praise intelligence or ability, students develop fixed mindsets and do not want to accept challenges because they do not want to be questioned for their talent. Instead, people who are praised for

their effort prefer a challenge to learn. Researchers in the language learning field highlight that teachers must praise effort, hard work and personal progress instead of praising natural talent (e.g. Lou & Noels, 2016, 2017a; Mercer & Ryan, 2010; Noels & Lou, 2015; Ryan & Mercer, 2011; Zarrinabadi et al., 2021).

5.8.2.3.7.2 Feedback as a Learning Resource.

Growth Mindset Research. To help students endorse growth mindsets, it does not suffice to tell them that they have to try hard, as it is equally necessary to provide them with effective strategies and opportunities for learning (Dweck, 2017). Feedback should serve as a resource that gives learners strategies to enhance the following tasks (Lou & Noels, 2019).

5.8.2.3.7.3 Assessments and Feedback.

Growth Mindset Research. Language learning success demands consistent effort and development; nonetheless, in some language classrooms, assessments consider performance and competition rather than students' expertise and growth (Lou & Noels, 2019). In unavoidable examinations which assess students' performance, educators' feedback should emphasise students' progress, for example by referring to how the contents of the test can help them with their language development and to achieve their learning goals and provide them with extra points for correcting mistakes to promote enhancement (Lou & Noels, 2019). Some teachers think that they should praise the process and not the outcome; however, this belief is incorrect because teachers should ideally praise both (Dweck, 2017). Teachers should explain to students that the outcome is possible thanks to the process that helped them to learn (Dweck, 2017).

5.8.2.3.7.4 Do Not Provide Comfort Feedback.

Growth Mindset Research. Teachers do not have to praise students as a consolation prize when they are not learning; praising consistent effort that brings good results is essential to

develop a growth mindset (Dweck, 2015, 2017). Teachers can appreciate students' effort but should not overestimate it. For example, when students are confounded, teachers could say: "Let's talk about what you've tried, and what you can try next" (Dweck, 2015). Educators should not give comfort feedback to students just to make them feel good because these messages end up being harmful to students' performances (Rattan et al., 2012). Comfort feedback that intends to justify a lack of ability can get to be as disappointing to students as obtaining a low grade (Rattan et al., 2012).

5.8.2.3.7.5 Do Not Label Students.

Growth Mindset Research. Teachers should not label students as "natural", "talented", "intelligent", "good", or "bad" because positive and negative labels usually affect students with fixed mindsets. If they are labelled as intelligent, they do not want to accept challenges to continue looking smart; if they are labelled as bad students, they think they will always be like that, then in both cases, effort is unnecessary for them (Dweck, 2007).

Classroom examples: The teacher provides students with praise and constructive feedback in everyday interactions, quizzes, and informal and formal assessments throughout the school year (spoken and written). The teacher should not provide comfort feedback. Teachers should praise students' effort, hard work and personal progress (instead of natural talent) and help them with ideas to improve their difficulties. The teacher can give detailed feedback and then summarise the main points the students need to improve. The teacher can comment on how much effort the student has put in and encourage them to keep up the hard work or work harder (see feedback examples in appendices Q, AA, BB). On the online site of the company Mindset Works, the growth mindset feedback tool provides some appropriate expressions to use with

students who do not work hard and do not get good results, who struggle despite hard work, and who succeed easily without effort (see appendix CC).

5.8.3 Final Recommendations

This section offers guidance and examples from the twelve MoodleX sessions to promote growth mindsets and the twenty-four online English lessons with a growth mindset orientation to help develop growth language mindset classroom cultures. Apart from cultivating a growth mindset, educators should comprehend the importance of these strategies to transmit them properly when teaching. These aspects should be embedded in the language learning classrooms at different teaching stages to provide a growth language mindset environment. Educators need to incorporate them from the lesson plan design (e.g. when designing aims, tasks and materials) and in the daily interaction with students, for example, by reacting positively to students' mistakes and providing constructive feedback and helpful strategies to persist with learning. Teachers can find different manners to transmit these ideas in language classrooms. They have the freedom to include key concepts and strategies at their convenience. However, it is important to highlight that all of them can be incorporated effectively at different stages of the teaching and learning process.

In this study, as the teacher was also the researcher, there was full dedication to the preparation, teaching and provision of feedback. However, several teachers may struggle to find time to do all these activities. Promoting a growth language mindset requires a lot of effort and dedication by the teachers. They would need to have sufficient time to plan growth mindset oriented lesson plans and provide students with constructive feedback so that they can use feedback as a learning resource. In Chile, teachers have 35% of their time devoted to non-teaching duties; however, only 40% of this time is mandatory for preparation, learning

assessment and activities that contribute to professional development (Ley Chile, 2021). Therefore, only 14% of the total hours could exclusively be used to plan growth mindset lessons and provide growth mindset oriented feedback. It might be necessary to adjust the working time regulations and allocate more hours for preparation, planning and assessment. Through this change, educators would have more time to prepare their growth mindset oriented lessons and deliver high-quality classes to promote students' learning. Alternatively, if teachers do not have enough time to provide feedback during their non-teaching hours, a feasible solution would be to plan some classes to provide students with feedback exclusively.

In this study, students successfully increased their English level. The success was established by considering each student's improvement in the results of pre- and post-English tests. Inferential statistics in SPSS corroborated that the difference was statistically significant. However, in the Chilean education system, students are expected to fulfil specific aims yearly. Therefore, the results obtained in this investigation might be overlooked as, oftentimes, students' marks do not reflect the progress individual students make. Instead, they expect all students—regarding their initial English level—to obtain the same good results (e.g. all students reaching an A2 level). Therefore, if possible, it would be ideal for teachers to design differentiated assessments considering their students' initial English level and assess their students' effort and progress. If schools' policies do not allow them to make such changes, teachers might implement a reward system that values effort, hard work and progress. For example, teachers could give extra points for the tests whenever students correct their mistakes, do extra homework or investigate topics beyond what was covered in class.

These recommendations can be used by educational policymakers and institutions that offer pedagogical training, such as universities, ELT training courses and Continuing

Professional Development (CPD) programmes. These educational institutions should stress the importance of developing growth mindsets in the classroom and incorporate guidance for language teachers into their programmes. Also, ELT materials writers could include activities and materials to help foster and consolidate students' growth mindsets. Finally and equally importantly, these suggestions can be used by in-service teachers who have already received pedagogical training and, therefore, would need to familiarise themselves with the growth mindset theory and probably modify their practices to create growth mindset oriented lessons. Even though this study was implemented in Chile, this set of guidelines can be used to facilitate growth mindsets in similar contexts outside of Chile.

5.9 Chapter Conclusions

Similar to other studies in the language learning field (Cacali, 2019; Lou & Noels, 2016, 2017; Waller & Papi, 2017) and different areas of knowledge (e.g. Blackwell et al., 2007; Jennings and Cuevas, 2021), this investigation has also shown that mindsets and motivation are interrelated. This is the first study to investigate the specific relationship between language mindsets (using the LMI questionnaire) and L2 motivation (using the L2MSS questionnaire). Results have shown that language mindsets significantly correlate with the Ideal L2 self and Attitudes to learning English constructs but found no correlation with the Ought-to L2 self, which has been considered an uncertain construct (see Al-Hoorie, 2018). As language mindsets and motivation moderately correlate with each other, it can be inferred that other personal or social factors can influence students' motivation.

A few past studies found mindsets and academic achievement to be associated, while others found no relationship. These contending findings are ratified by investigations with thousands of participants around the globe, which have found a weak relationship (Sisk et al.,

2018) or inconsistent and diverse association among groups of students (Gouëdard, 2021a, 2021b; Sun et al., 2021). The present study did not find such a relationship; however, it is important to highlight that this cannot be generalised to the whole population as the sample had growth-mindset orientations and high marks. Therefore, finding a significant correlation without a variety of mindsets (fixed, growth and mixed) and academic achievement was unlikely. Nonetheless, studies have also emphasised that mindsets are likely to function together with other cognitive-affective constructs, which can influence achievement (e.g. Dweck & Yeager, 2019).

The current study has also revealed that students' and teachers' mindsets are unrelated. However, again the sample limitation did not allow for a variety of mindsets as most teachers and students, in general, were growth-mindset oriented. Several researchers claim that teachers and their mindsets can influence students (e.g. Dweck, 1999, 2008, 2010, 2017; Lou & Noels, 2016; 2017a, 2019; Yeager & Dweck, 2012; Schmidt et al., 2015). However, only two investigations have empirically researched this relationship, with convergent results. MacDonnell Mesler et al. (2021) found a positive, moderate and significant association, while Claro et al. (2021) did not find a relationship between students' and teachers' mindsets. It might be possible that not only teachers but also the school context, including peers and school policies, influence students' mindsets.

This study successfully conducted online sessions to develop growth mindsets. This finding is similar to previous investigations in the language learning field (e.g. Lou & Noels, 2016) and other areas of knowledge (e.g. Paunesku et al., 2015; Sriram, 2014; Yeager et al., 2016), which have reported successful short-term effects of the interventions. Qualitative data confirmed that all of the sessions' contents helped students become more growth-mindset

oriented and allowed learners to confirm with scientific evidence and real examples that anyone can learn a new language if they work hard. Students got more growth-oriented language mindsets right after the sessions (i.e. in the short term) and three months after the sessions (i.e. in the long term). Other studies have reported successful long-term effects, but these measures were taken nine weeks after and three weeks after the interventions (Aronson et al., 2002, and Blackwell et al., 2007, respectively). The only study that took measures three months after the intervention (Donohoe et al., 2012) reported unsuccessful long-term effects. Previously revised mindsets interventions have demonstrated better effects when students learn more than brain malleability in the sessions (Yeager et al., 2016, 2019). The novelty of these sessions was that all suggestions to develop growth language mindsets by experts in the field were considered (e.g. Lou & Noels, 2016, 2017, 2019, 2020; Mercer & Ryan, 2010, 2012). This could imply that the same recommendations could be used to facilitate growth mindsets among students from Chile and beyond.

The online sessions also enhanced students' L2 motivation; specifically, two aspects of the L2MSS questionnaire: The ideal L2 self and Attitudes to learning English, which was confirmed by qualitative data too. Qualitative data showed that students' positive attitudes to L2 were related to the online sessions, as they found them helpful, enjoyable and motivating, showing that the online sessions increased their enthusiasm. Also, students' written reflections showed that their L2 motivation increased. Some students started feeling motivated to learn not only a second but a third language, felt that the sessions boosted their English development and became more autonomous learners. These findings are similar to other investigations outside the language learning field that have reported positive short-term effects on motivation and motivational constructs (e.g. Blackwell et al., 2007; Sriram, 2014; Yeager et al., 2016). However,

these effects were not sustained three months after the sessions. One explanation for these unsuccessful results is that other factors, such as COVID-19, might have impacted upon students' motivation. Another interpretation would be that students' growth mindsets might need to be not only developed but supported. This is suggested by recent research (e.g. Dweck & Yeager, 2021; Murphy et al., 2021) and this study's findings, as some of the students who already had growth mindsets before the sessions increased their motivation while actively taking part in the online sessions. This shows that growth mindset oriented individuals benefit from being reminded of the growth mindset theory.

In this study, growth mindset English classes significantly improved students' English academic achievement. While the results of the current study are promising, previous research has shown that interventions to change students' mindsets, motivation and achievement are sometimes successful only for specific groups of students, especially lower-achieving (e.g. Sisk et al., 2018; Yeager et al., 2019). Other interventions have not improved students' learning outcomes (e.g. Foliano et al., 2019; Jennings & Cuevas, 2021; Rienzo et al., 2015; Sriram, 2014). Some studies have concluded that growth mindset-oriented students benefit the most when the school environment supports growth mindset information (Gouëdard, 2021b; Yeager et al., 2019, 2022). Thus, future research should focus on developing growth mindset classroom cultures (e.g. Dweck & Yeager, 2021; Murphy et al., 2021). These classes included most of the suggestions for developing these cultures. Therefore, this study supports the idea that growth mindsets should be facilitated and supported at all times in classrooms to improve students' learning and achievement.

The online sessions on MoodleX and the online English classes with a growth-mindset orientation can serve as examples to help language teachers foster and support growth language

learning mindsets in their classes throughout the school year and contribute to creating growth mindset classroom cultures, which should be the aim of future research. For this reason, a guideline to facilitate the development of a growth language mindset culture in the classroom was presented in the pedagogical implications, which is a novelty in the language learning field. The next chapter will conclude this thesis by referring to the current study purpose and aims achieved, reviewing the six RQs of this investigation and discussing the limitations of the present study and ideas for further research.

Chapter 6: Conclusions

6.1 Introduction

This study aimed to examine whether developing growth language learning mindsets among secondary-school students in the Chilean context would facilitate their growth mindsets to increase their motivation and academic achievement. Studies suggest that teachers influence students' mindsets (Dweck, 2017; Lou & Noels, 2016, 2019). Previous investigations showed that mindsets and motivation were related (e.g. Gouëdard, 2021b; Lou & Noels, 2016, 2017) and that participants enhanced their motivation after receiving treatment to develop their growth mindsets (e.g. Blackwell et al., 2007; Yeager et al., 2016). The mindset-academic achievement relationship and influence have shown confounding results. Some studies support the mindset-achievement relationship (e.g. Claro & Loeb, 2019; Gouëdard, 2021a) and the impact of growth mindset interventions on achievement (e.g. Yeager et al., 2016, 2019). On the contrary, other investigations show no relationship between these two variables (e.g. Li & Bates, 2019; 2020; Lou et al., 2021) and no influence of mindsets on achievement after an intervention (e.g. Donohoe et al., 2012).

However, most of the previously mentioned research has been conducted on areas other than language learning, and only a couple of them have been carried out in Chile. For instance, no studies had investigated whether there was a relationship between teachers' and students' language mindsets or the mindset-motivation relationship and influence in the Chilean context. While two studies (i.e. Claro et al., 2016, 2021) showed that mindset and achievement are associated, no study had specifically looked at the relationship between language mindset and achievement or whether the development of a growth language mindset could influence students' achievement.

Investigations about students' English levels and growth mindsets studies conducted in Chile have brought to light inequality issues. For example, students from the lowest-income families have the lowest English levels (Agencia de Calidad de la Educación, 2015, 2019), are more fixed-mindset oriented (than students from high SES) (Claro et al., 2016) and have more fixed-mindset teachers (than students from high SES) (Claro et al., 2021). Some studies claim that growth mindset can influence academically disadvantaged individuals (e.g. Sisk et al., 2018) and might improve academic performance equity (Gouëdard, 2021a, 2021b).

Considering the scarce research on language mindsets in the Chilean context (and worldwide) and the feasible benefits that growth language learning mindsets may bring to students' motivation, learning and achievement in Chile, the following research questions were addressed:

- RQ 1: Is there a relationship between students' language mindset and L2 motivation?
- RQ 2: Is there a relationship between students' language mindset and English academic achievement?
- RQ 3: Is there a relationship between students' and teachers' language mindsets?
- RQ 4a: Can sessions to promote growth language mindsets impact upon students' mindsets?
- RQ 4b: Can sessions to promote growth language mindsets impact on students' L2 motivation?
- RQ 5: Can growth mindset oriented online lessons impact students' academic achievement?

The next section of this final chapter of the thesis will briefly explain how the aims of the study were achieved and refer to the significance of the present study. Then, a review of each of

the six research questions will be presented. Later, the limitations of the study as well as further research recommendations will be discussed. The last section will conclude with a reflection on the main points discussed in this chapter.

6.2 Aims Achieved

This investigation successfully addressed the six research questions. Although this study did not find an association between students' mindsets and academic achievement and students' and teachers' mindsets, it found a statistically significant relationship between language mindset and motivation. In addition, the study showed that sessions to develop growth language mindsets influenced students' language mindsets and L2 motivation. Moreover, English classes with a growth mindset orientation improved students' English academic achievement. Taken together, these results showed that fostering growth language mindsets help to increase secondary-school students' L2 motivation and academic achievement in Chile. This finding suggests that the development of growth mindsets might help to increase Chilean students' motivation to learn English, their learning and academic achievement. It might also help to diminish the academic inequality differences that have persisted in Chile for several years.

Aspects of the research design were particularly useful in providing insightful results and examples. The application of post-tests three months after the sessions showed that they were effective in changing students' mindsets in the long term but ineffective in keeping students' increased motivation (see section 4.6.4). Also, the qualitative component was vital to triangulating the data and learning about students' experiences while completing the twelve sessions. Interestingly, some unexpected outcomes beyond the aims of this research came to light. For example, quantitative and qualitative results showed that the ought-to L2 self did not contribute to L2 motivation, demonstrating that it might be a debatable construct, as previous

research has also suggested (e.g. Al-Hoorie, 2018; Teimouri, 2017). In addition, students' responses provided new and valuable information regarding the experience of attending growth mindset sessions, such as increased motivation of already growth mindset students, increased motivation to learn a third language, English progress and autonomy development.

This research supports previous investigations that have reported that mindsets can change (e.g. Aronson et al., 2002; Blackwell et al., 2007; Lou & Noels, 2016; Paunesku et al., 2015; Sriram, 2014; Yeager et al., 2016) and, in turn, influence motivation (e.g. Blackwell et al., 2007; Sriram, 2014; Yeager et al., 2016) and academic achievement (e.g. Aronson et al., 2002; Blackwell et al., 2007; Dweck, 2017; Good et al., 2003; Paunesku et al., 2015; Yeager et al., 2016, 2019). Also, considering the results obtained while investigating the relationship between mindset and achievement, this research agrees with studies that suggest that language mindsets are related to the Ideal L2 self (e.g. Lou & Noels, 2020; Zarrinabadi et al., 2022). In addition, this study revealed that language mindsets are also related to Attitudes to learning English (L2 learning experience). Finally, due to the in-depth research conducted to design the sessions in MoodleX and English lessons that led to successful outcomes, this study developed a guideline to facilitate the development of growth mindset classroom cultures. This is a novel contribution to the practical use of the theory in the language learning field. The guideline is useful for language teachers to comprehend the theory's background and get inspiration from practical activities to develop growth language mindsets in their classrooms.

6.3 Reviewing the Research Questions

6.3.1 RQ 1: Is There a Relationship Between Students' Language Mindset and L2 Motivation?

This investigation has shown that secondary students' language mindsets are associated with their L2 motivation. The quantitative methodology revealed a statistically significant

correlation between the two variables. This finding is not surprising and is in line with previous research in the language learning field (Cacali, 2019; Lou & Noels, 2016, 2017; Waller & Papi, 2017) and other areas of knowledge (e.g. Blackwell et al., 2007; Gouëdard, 2021b; Jennings and Cuevas, 2021), which have found that mindsets and motivation are associated. It is also important to highlight that the degree of correlation between these two variables is mainly "moderate". This implies that language mindsets are one of the factors connected to L2 motivation.

A deeper analysis also showed that language mindsets correlated better with two aspects of the L2MSS Q: The ideal L2 self and attitudes to learning English. In contrast, a slightly negative association was found between language mindsets and the ought-to L2 self. The association between mindsets and the Ideal L2 self was predicted by Lou and Noels (2020) and also confirmed by Cacali (2019) and Zarrinabadi et al. (2022). Similarly to the results of this investigation, in Cacali's (2019) study, mindsets and the ought-to L2 self were not related. However, this study also found a statistically significant relationship between language mindsets and attitudes to learning English, which was not found in Cacali's (2019) study. In short, the current investigation shows that adolescents' language mindsets are associated with the ideal image they project about themselves in the future and their actual English learning experiences. Their beliefs about the importance of effort and hard work connect to their engagement in their present English language learning experiences and visualisation of their ideal L2 selves in the future.

6.3.2 RQ 2: Is There a Relationship Between Students' Language Mindset and English Academic Achievement?

This current study found that students' language mindsets were unrelated to their academic achievement. Investigations worldwide have found different results (i.e. some have found that these variables are connected, and others have not). Nonetheless, these findings align with the only investigation in the language learning field (Lou et al., 2021) and some large-scale studies examining this relationship in different parts of the world. For example, Sisk et al. (2018) found a weak relationship and Gouëdard (2021a, 2021b) and Sun et al. (2021) state that the mindset-achievement relationship is not consistent among students' groups. As some research has suggested (e.g. Dweck & Yeager, 2019), mindsets might function together with other factors that influence academic achievement.

6.3.3 RQ 3: Is There a Relationship Between Students' and Teachers' Language Mindsets?

Several studies highlight that teachers are critical in the development of growth mindsets (e.g. Dweck, 1999, 2008, 2010, 2017; Lou & Noels, 2016; 2017a, 2019; Noels & Lou, 2015; Schmidt et al., 2015; Yeager & Dweck, 2012; Yeager & Walton, 2011; Zhang et al., 2017). Even though this statement might have predicted a positive relationship between students' and teachers' language mindsets, this study did not find an association. This finding is similar to another study conducted in Chile (i.e. Claro et al., 2021), which did not find a statistically significant correlation between these two variables with teachers of subjects other than language. However, another study (i.e. MacDonnell Mesler et al., 2021) conducted with participants from the USA and Canada found a statistically significant correlation. As some studies have suggested, other actors such as peers (Donohoe et al., 2012; Sheffler & Cheung, 2020) might also influence students.

6.3.4 RQ 4a: Can Sessions to Promote Growth Language Mindsets Impact Upon Students' Mindsets?

The online sessions to promote growth mindsets successfully influenced students' language mindsets in the short and long term. The short-term results are not unforeseen as former studies also proved that it is possible to change individuals' mindsets right after an intervention (e.g. Lou & Noels in the language learning field; Paunesku et al., 2015; Sriram, 2014; Yeager et al., 2016 in other areas of knowledge). The qualitative data agreed with these quantitative results as students' responses showed that they changed their incorrect language learning beliefs or intensified their growth language oriented mindsets by learning and practising with the contents of the twelve online sessions. The novelty of this study is that students maintained the effects of the sessions after three months. A few investigations have reported long-term effects, but the last measures were taken three weeks after (Blackwell et al., 2007) and nine weeks after (Aronson et al., 2002). Only one study's last measure was taken three months after, but the follow-up assessment revealed that the effects of the intervention were not sustained in time (Donohoe et al., 2012). Considering the positive impact of the online sessions, it is suggested that it is not enough to teach only about brain malleability to develop growth mindsets. It is essential to include all of the up-to-date research regarding this matter, as this study did and included all experts' recommendations (e.g. Lou & Noels, 2016, 2017, 2019, 2020; Mercer & Ryan, 2010, 2012).

6.3.5 RQ 4b: Can Sessions to Promote Growth Language Mindsets Impact on Students' L2 Motivation?

The sessions also impacted students' L2 motivation. Quantitative and qualitative data were aligned and demonstrated that the ideal L2 self and attitudes to learning English drove

students' L2 motivation. Also, this mixed-method research showed that the sessions increased the L2 motivation of students with different mindset orientations. They changed the motivation of students who had incorrect beliefs before the sessions and increased the motivation of one-third of the students who were already growth mindset oriented. Qualitative data showed that in addition to increased L2 motivation, the sessions also helped some students to enhance their L3 motivation, develop their English competence and become more autonomous learners. All these favourable findings are in line with other studies (in other areas of knowledge) that have found positive short-term effects on motivational constructs (e.g. Blackwell et al., 2007; Sriram, 2014; Yeager et al., 2016). Nonetheless, the increased motivation effects decreased three months after the sessions. This result might suggest that other factors (e.g. COVID-19) might have affected students' motivation. Another interpretation is that growth mindsets should not only be part of a formal intervention but should be constantly supported to influence motivation (as suggested by recent research, e.g. Dweck & Yeager, 2021; Murphy et al., 2021). Some data from this study justify this claim. Some students who already had a growth mindset before starting the sessions enhanced their motivation as a result of the sessions. This shows that learning and reflecting on growth mindset concepts can stimulate L2 motivation.

6.3.6 RQ 5: Can Growth Mindset Oriented Online Lessons Impact Students' Academic Achievement?

This investigation demonstrated that English lessons with a growth mindset orientation improved academic achievement. This result might lose strength considering some previous research that has found that growth mindset interventions are helpful only for students with certain characteristics, for example, lower-achieving students (e.g. Sisk et al., 2018; Yeager et al., 2019). However, updated research (Gouëdard, 2021b; Yeager et al., 2019, 2022) emphasises

that students with a growth mindset orientation benefit the most in school environments that support the growth mindset messages. For this reason, growth mindset researchers (Dweck & Yeager, 2021; Murphy et al., 2021) suggest developing growth mindset classroom cultures. The English classes with a growth mindset orientation created and tested—prior to the publications that encourage developing these types of cultures—most of these suggestions. Therefore, this research supports fostering growth mindsets in every lesson as part of the classroom culture to enhance students' learning and academic achievement.

6.3.7 From Theory to Practice

With a few exceptions (e.g. Donohoe et al., 2012; Rienzo et al., 2015), research has shown that mindsets can change (e.g. Aronson et al., 2002; Blackwell et al., 2007; Lou & Noels, 2016; Paunesku et al., 2015; Sriram, 2014; Yeager et al., 2016) and that growth mindsets positively impact learners' motivational variables (e.g. Blackwell et al., 2007; Sriram, 2014; Yeager et al., 2016). Nonetheless, the impact of growth mindset on academic achievement works mainly for disadvantaged students (Sisk et al., 2018). Some studies have revealed that students with growth mindsets get better outcomes when teachers (Gouëdard, 2021b; Yeager et al., 2022) and the school context (Yeager et al., 2019) support the growth mindset input. Therefore, recent studies (e.g. Dweck & Yeager, 2021; Murphy et al., 2021) suggest that the focus of research should change to teachers rather than students and propose the development of a growth mindset classroom culture.

This suggestion seems to be also supported by research concerning teachers' mindsets and practices. Some empirical studies suggest that teachers' mindsets drive their pedagogical practices (e.g. Claro et al., 2021; Zarrinabadi & Afsharmehr, 2022). However, some studies indicate that some teachers (and pre-service teachers) have mixed mindsets (e.g. Elige Educar,

2017; Mercer & Ryan, 2010; Rissanen et al., 2019; Tapia Castillo, 2018; Zarrinabadi & Afsharmehr, 2022). This means that they might promote some fixed mindset ideas to the students. Therefore, mixed-mindset teachers might benefit from upgrading their knowledge to understand better the benefits behind the growth mindset theory. On the other hand, some studies have found that teachers have growth mindsets (e.g. Claro et al., 2021; Park et al., 2016; Frondozo et al., 2020). Nonetheless, some research also suggests that growth mindset teachers are not familiar with suitable strategies to promote growth mindsets (e.g. de Kraker-Pauw et al., 2017; Schmidt et al., 2015; Yettick et al.,2016). Thus, teachers need to know what practices might help them to promote growth mindsets in their students. Considering all the research regarding teachers' mindsets and the mindset and pedagogical practices relationship, teachers need to understand the growth mindset theory and practical ideas to foster growth mindsets in the classrooms.

This study demonstrated that growth language mindsets could be developed and impact motivation and academic achievement. The MoodleX sessions and English lessons with a growth mindset orientation were designed by conducting in-depth research, which allowed successful results. A comparison between the recommendations to create growth mindset classroom cultures (see Murphy et al., 2021) and this research found some similarities; however, this research is oriented to language learning and, therefore, to developing growth language learning mindsets. Thus, the theory and examples specifically concern language learning, which is an innovation that could be put into practice by language teachers worldwide.

6.4 Limitations

A critical limitation of the present study was the small sample size and the participants' profiles. It was not possible to recruit more participants due to COVID-19 restrictions. The

participants who joined this research were mainly growth mindset oriented, motivated to learn English and had good marks. Therefore, to understand the generalisation of these findings, researchers should gather a higher number of participants to test the effectiveness of fostering growth language mindsets on motivation and academic achievement. By doing so, researchers could examine the growth mindset effects on participants with more fixed mindset orientations and lower motivation and academic achievement. This might help to increase studies' external validity.

The fact that this study was conducted using a voluntary sample might have also decreased its external validity, to some extent. If this investigation were conducted in a classroom with more students (e.g. around 40 students per classroom in the Chilean context)—as this research was initially designed before the COVID-19 emergency—there would probably be other challenges to face, which might produce different results. For that reason, future investigations should try to conduct studies with a more representative number of students per classroom.

The limited number of participants also affected the study's (i.e. pre-experimental design) internal validity. Unfortunately, it was not feasible to divide students into control and treatment groups due to the low number of participants and the uncertainty of how many would persist with the total study time (around five months). Although responses to the threats of this design were explained in section 3.9.2.2, the pre-experimental nature of this research may affect the study's internal validity. Thus, future investigations might consider designing experiments to confirm the effectiveness of developing growth language mindsets by using a more reliable study design.

Finally, another limitation is that the researcher was also the teacher who delivered the English lessons with a growth mindset orientation. One can argue that as the researcher profoundly knew the growth mindset theory, it is possible that by following in-depth knowledge on how to promote growth mindsets, changes in students' mindsets and achievement could happen more easily. However, this might also be considered a bewildering factor as it might mean that if teachers are not fully trained to promote growth mindsets, they might not obtain the same results. For this reason, the guideline to facilitate the development of growth mindsets might help educators learn and put into practice these findings.

6.5 Future Research

Despite the limitations of this study, the results revealed promising positive effects on students' mindsets, motivation and achievement, which can be tested by further research using more participants in Chile and other contexts. The online sessions in MoodleX might be useful if the aim is to investigate the development of growth mindsets separately from the classroom contents and activities. On the other hand, the guideline to facilitate the development of growth language mindsets can be applied if the aim is to incorporate the growth mindset theory into everyday classroom activities.

Some minor changes could be applied to the methodology of the sessions to develop growth mindsets. For example, it would be helpful to add the qualitative component when assessing the long-term effects to test the sessions to promote growth mindsets. In this study, students were required to provide qualitative data during the two months of participating in the sessions. However, the delayed post-test (taken three months after the sessions) only included the quantitative instrument. Considering the valuable information provided by the diary entry questions, future research should also incorporate this qualitative instrument in the research

design to assess long-term effects on mindsets and motivation. Also, researchers can develop these online sessions in a face-to-face context and see if they produce the same results. In face-to-face classes, the students would have the teacher's support to solve questions or clarify doubts; this may be more impactful.

Studies might design interventions to test the guideline to facilitate the development of growth mindsets with students from different schools and contexts in Chile and worldwide. It would be interesting to learn how well teachers can understand and put into practice the recommendations offered in the guideline and discover if this would benefit students in the short and long term in broader contexts. The instruments to assess the guideline could be the same as those used in this investigation (LMI questionnaires, L2MSS questionnaires, diary entry questions and pre-and-post-English tests). Additionally, adding the qualitative component to the long-term measures and some instruments for examining whether the lessons can impact learners' autonomy and emotions would be helpful to learn more about growth language mindsets' influence. Finally, future studies that investigate the effects of growth mindsets on academic achievement might need to consider carefully what measures will assess achievement. For example, students' GPA—the most popular measure—might not reflect students' effort and progress, which is the main focus of the growth mindset theory (see section 5.8.3).

Besides, studies might incorporate other recent advice given to developing growth language mindsets, such as the suggestions given in the current study (considering participants' answers) to enhance the effectiveness of the sessions by clarifying students' uncertainties related to the difficulties of following all the recommendations, the role of natural talent and ability and the effectiveness of the growth mindset theory with people with disabilities (see section 5.5.1). Also, studies might include the example of activities provided by Williams et al. (2021) to

promote growth language mindsets. Finally, it might be worth including in the guideline to promote growth language mindsets the first category (i.e. Inclusive Classroom Environments Tuned to Learning) suggested in Murphy et al.' s (2021) study.

Future research should investigate the influence that teachers (and peers) have on students' language mindsets. So far, most studies have researched students' mindsets instead of the possible effect that teachers' mindsets can have on students' mindsets (Dweck, 2017; Good, Rattan, & Dweck, 2012; Haimovitz & Dweck, 2016; Rattan et al., 2015; Sisk et al., 2018). This investigation did not find an association between students' and teachers' mindsets; however, further research is needed to further explore this finding. It might be worth considering how long teachers and students have known each other and adding a qualitative component to examine this relationship. The STEAM coding scheme (see de Ruiter et al., 2020 or section 2.7.2) might be helpful as well as other qualitative tools such as observations, interviews and focus groups.

This study examined whether language mindsets were related to L2 motivation and English academic achievement. Results showed a statistically significant relationship between mindsets and motivation. However, mindsets show a weak correlation with the whole L2MSS Q, a moderate correlation with the Ideal L2 Self and Attitudes to learning English, which means that other factors also relate to motivation and might impact upon it. Future research should examine different models, such as the Mindset-Goal-Response Model (Lou & Noels, 2017a) or the LMMS (Lou & Noels, 2020). Also, more investigations should examine whether the ought-to L2 self construct contributes to L2 motivation using varied samples in the Chilean context. This investigation did not find a significant correlation between mindsets and academic achievement. Also, a meta-analysis (Sisk et al., 2018) concluded that the relationship between mindset and

achievement was weak. Therefore, future studies might also consider other variables related to achievement.

The literature review showed that the growth mindset theory seems not to have successful results in the UK. For example, Li and Bates (2020) did not find an association between mindset and achievement in the UK. Similarly, Donohoe et al. (2021) did not find a relationship between these variables in the Scottish context. In addition, Donohoe et al. (2012), Rienzo et al. (2015) and Foliano et al. (2019) have also reported that interventions to promote growth mindsets have been unsuccessful. It might be interesting to investigate whether cultural factors in the UK might hinder the positive effects of a growth mindset.

6.6 Conclusions

This chapter started off by summarising some key points of the theoretical framework and gaps in knowledge. Next, the aims were discussed in connection with the research questions. Later the limitations of the current study were carefully explained to finally suggest some ideas that researchers can consider for future studies in the Chilean context and beyond.

The COVID-19 restrictions are somehow responsible for most of the limitations of this study, as the low number of participants may have affected the external and internal validity of this research. Nonetheless, the study's design allowed to answer the RQs and some aspects, such as the long-term measures and the mixed methodology, strengthened the study's findings. This research emphasises the richness of using qualitative instruments to explore language mindsets and motivation changes. Open-ended questions in the diary entries allowed participants to reflect more profoundly, and this information was vital in answering the RQs with convincing arguments.

Despite this study's limitations, it contributes to understanding the impact of a growth language mindset on adolescents in the Chilean context. It suggests facilitating growth mindsets to enhance motivation, learning and achievement in Chile and similar contexts that face, for example, academic inequality differences. Also, this study contributes to the general growth mindset research by aligning with previous studies that have found that mindsets can change and influence motivation and achievement. In the language learning field, this investigation is innovative in developing growth language mindsets to test its effects on L2 motivation and English academic achievement in the short and long term. Moreover, it provides a guideline to facilitate growth language mindsets, which might be helpful for language teachers willing to create a growth mindset culture in their classrooms. The guideline offers practical suggestions to develop students' growth language mindsets and improve their motivation, English abilities and academic achievement. Finally, this study also provides recommendations for future research to continue contributing to understanding language mindsets and their implications in language learning motivation and learning.

This study significantly contributes to understanding the impact of a growth language mindset by recognising its importance in shaping motivation, learning, and achievement. This recognition has the potential to empower educators and policymakers to explore strategies that foster a growth mindset, thereby enhancing educational outcomes. Moreover, this study's alignment with previous research findings strengthens the validity and reliability of growth mindsets as a concept, affirming their potential to bring about positive changes in various domains, including language learning. Through its exploration of the relationship between growth language mindsets and language learning outcomes, this study provides valuable insights that can inform language teaching practices and curriculum development. By implementing the

practical guidelines derived from this investigation, teachers can create a supportive learning environment that cultivates a growth mindset among students, encouraging them to embrace challenges and persevere in their language-learning journey. This research aims to inspire and encourage scholars, researchers, and teachers to continue expanding their knowledge in this area by building upon the findings and delving deeper into the role of mindsets in language learning. Future research can contribute to a comprehensive understanding of language mindsets and further inform educational practices. Ultimately, the goal is to create an educational landscape where growth language mindsets are valued and integrated, leading to improved motivation, enhanced learning outcomes, and increased academic achievement for students in language learning contexts in Chile and worldwide.

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Appendices

Appendix A: Teachers' PIS and Consent Forms

University of Essex

LANGUAGES & LINGUISTICS

Participant Information Sheet (Teachers)

Project Title: Developing growth language learning mindsets

April 2020

Researcher: Claudia Vanessa Tapia Castillo. E-mail address: ct17370@essex.ac.uk

Supervisor: Christina Gkonou. E-mail address: cgkono@essex.ac.uk

Department of Language and Linguistics, University of Essex

This study aims to investigate whether an online intervention to develop growth language learning mindsets can have an impact on Chilean students' mindsets, their English academic achievement and their motivation toward English language learning.

You have been invited to participate in this study because teachers of English and students can provide relevant information about how an intervention to develop language mindsets can influence individuals' mindsets, achievement and motivation.

This study requires that teachers complete a questionnaire about second language learning beliefs.

This study requires the school to allow access to the students' English average for the academic year 2019.

Your participation in this study is strictly voluntary, and refusal to participate will not result in any disadvantage in any way to you in the future.

Growth mindsets are associated with increased motivation and better academic achievement; therefore, students can directly benefit from this study. Growth language mindsets believe that learning a new language is possible as long as you put a lot of effort and work hard for it. In this intervention, students will receive materials and activities that will allow them to eliminate incorrect beliefs that might prevent them from learning English and will comprehend that they are all able to be successful language learners.

By participating in this study, the utmost care will be taken that no harm to your psychological well-being, physical health values or dignity will be affected.

You have the right to withdraw from this study at any time and your information destroyed if you wish.

Your privacy will be respected at all times and all information collected will be anonymous and remain completely confidential. Any personal data will be coded using a number, so no data can be linked to your identity. All data will be treated as personal under the 1998 Data Protection Act, and they will be secured electronically in my own laptop, which contains a secure password.

Christina Gkonou, who is my supervisor, will have access to the data.

If you have a question about the ethical nature of this study, please contact the researcher Claudia Tapia Castillo (ct17370@essex.ac.uk), or the research study supervisor Christina Gkonou (cgkono@essex.ac.uk).

University of Essex

LANGUAGES & LINGUISTICS

Participant Consent Form (Teachers)

Project Title: Developing growth language learning mindsets

Researcher: Claudia Tapia Castillo

Instructions: Read each of the statements and then initial each box if you agree with them.

1. Taking Part

I have read and understood the participant information sheet dated April 2020. ☐

I have been given the opportunity to ask questions about the project. ☐

I agree to take part in the project. Taking part in the project will involve: ☐

- Completing a questionnaire about language learning beliefs

- Allowing access to the students' English average for the academic years 2019 and 2020. ☐

I understand that my taking part is voluntary; I can withdraw from the study ☐

at any time, and I do not have to give any reasons for why I no longer want to take part.

2. Use of the information I provide for this project only ☐

I understand my personal details such as name and e-mail address, will not be revealed to people outside the project.

Name of teacher [printed] Signature Date:

Researcher [printed] Signature Date:

Appendix B: Parents' PIS and Consent Forms

Participant Information Sheet (Parents)

Project Title: Developing growth language learning mindsets

April 2020

Researcher: Claudia Vanessa Tapia Castillo. E-mail address: ct17370@essex.ac.uk

Supervisor: Christina Gkonou. E-mail address: cgkono@essex.ac.uk

Department of Language and Linguistics, University of Essex

- This study aims to investigate whether an online intervention to develop growth language learning mindsets can have an impact on teachers of English's mindsets as well as on Chilean students' mindsets, their English academic achievement and their motivation toward English language learning.

- This school has been invited to participate in this study because 10th-grade students and their teachers of English can provide relevant information about how an intervention to develop language mindsets can influence their mindsets, achievement and motivation.

- Students will receive twelve online sessions to develop growth language mindsets. The sessions will include information about the malleability of the brain, second language learning beliefs, examples of famous people who have learned a new language, and strategies to develop language learning skills, such as vocabulary, reading, and writing.

- Students will take a pre- and a post-English Test and attend 24 online English lessons.

- This study requires students to answer two questionnaires about second language learning beliefs and motivation toward English learning at the beginning and at the end of the intervention and provide some written feedback on four occasions.

- It is also necessary that students have an e-mail account and use a computer to access the materials.

- Participation in this study is strictly voluntary, and refusal to participate will not result in any disadvantage in any way to you in the future.

- Growth mindsets are associated with increased motivation and better academic achievement; therefore, teachers and students can directly benefit from this study. Growth language mindsets believe that learning a new language is possible as long as you put a lot of effort and work hard for it. In this intervention, teachers will acquire strategies to foster growth mindsets and students will receive materials and activities that will allow them to eliminate incorrect beliefs that might prevent them from learning English and will comprehend that they are all able to be successful language learners.

- By participating in this study, the utmost care will be taken that no harm to your child's psychological well-being, physical health values or dignity will be affected.

- Your son/daughter will have the right to withdraw from this study at any time and his/her information will be destroyed if he/she wishes.
- Privacy will be respected at all times and all information collected will be anonymous and remain completely confidential. Any personal data will be coded using a number, so no data can be linked to your identity. All data will be treated as personal under the 1998 Data Protection Act, and they will be secured electronically in my own laptop which contains a secure password.

- Students' words may be quoted in publications, reports, web pages, and other research outputs.

- Christina Gkonou, who is my supervisor, will have access to the data.

- If you have a question about the ethical nature of this study, please contact the researcher Claudia Tapia Castillo (ct17370@essex.ac.uk), or the research study supervisor Christina Gkonou (cgkono@essex.ac.uk)

- If you are still not satisfied, please contact the University's Research Governance and Planning Manager, Sarah Manning-Press (e-mail sarahm@essex.ac.uk).

Thank you for taking part in this research study.

University of Essex

LANGUAGES & LINGUISTICS

Participant Consent Form (Parents)

Project Title: Developing growth language learning mindsets

Researcher: Claudia Tapia Castillo

Instructions: Read each of the statements and then initial each box if you agree with them.

1. Taking Part

I have read and understood the participant information sheet dated April 2020. ☐

I have been given the opportunity to ask questions about the project. ☐

I agree for my daughter/son to take part in the project. Taking part in the project will involve: ☐

-Receiving an online intervention to develop growth language mindsets.

-Answering three questionnaires about second language learning beliefs and motivation toward English learning before and after the intervention and providing some written feedback on four occasions.

-Taking a pre and post English Test

- Attending 24 Online English Lessons

I understand that my child's taking part is voluntary; he/she can withdraw from the study at any time, and I do not have to give any reasons for why I no longer want my daughter/son to take part. ☐

2. Use of the information I provide for this project only

I understand my daughter' s/son's personal details such as name and e-mail address, will not be revealed to people outside the project. ☐

I understand that my daughter's / son's words may be quoted in publications, reports, web pages, and other research outputs. ☐

_____

Name of Parent/tutor [printed] Signature Date:

_____

Researcher [printed] Signature Date:

Appendix C: Teachers' Questionnaire

Part 1: Personal Information

1. Gender

Female Male Prefer not to say

2. How old are you?

21-30 31-40 41-50 51-60 61-70

3. Years of experience as a teacher of English

1-10 11-20 21-30 31-40 41-50

4. What's your level of English?

A1 A2 B1 B2 C1 C2

I do not know

5. What type of work do you have?

Full –time job Part-time job

Part 2: Implicit theory of language intelligence scale

Instructions: Below there are a number of statements about language intelligence. Language Intelligence is the capacity to use spoken and written language, your native language, and perhaps other languages, to express what's on your mind and to understand other people. People with high language intelligence display a facility with words and languages. They are typically good at reading, writing, telling stories.

Please rate how much you personally agree or disagree with these statements. There is no right or wrong answer. I am interested in your ideas.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

2.1 Beliefs about general language intelligence (GLB):

6. You have a certain amount of language intelligence, and you can't really do much to change it.

7. Your language intelligence is something about you that you can't change very much.

8. To be honest, you can't really change your language intelligence.

9. No matter who you are, you can significantly change your language intelligence level.

10. You can always substantially change your language intelligence.

11. No matter how much language intelligence you have, you can always change it quite a bit.

2.2 Beliefs about second language learning (L2B):

12. To a large extent, a person's biological factors (e.g. brain structures) determine his or her abilities to learn new languages.

13. It is difficult to change how good you are at foreign languages.

14. Many people can never do well in foreign language even if they try hard because they lack natural language intelligence.

15. You can always change your foreign language ability.

16. In learning a foreign language, if you work hard at it, you will always get better.

17. How good you are at using a foreign language will always improve if you really work at it.

2.3 Beliefs about age sensitivity and language learning (ASB):

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

19. People can't really learn a new language well after they reach adulthood.

20. Even if you try, the skill level you achieve in a foreign language will advance very little if you learn it when you are an adult.

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

22. How well a person learns a foreign language does not depend on age; anyone who works hard can be a fluent speaker in that language.

23. Regardless of the age at which they start, people can learn another language well.

Appendix D: Students' Questionnaire

Part 1: Personal Information

1. Gender

Female Male Prefer not to say

2. How old are you?

14 15 16 17 18

3. In what year did you start receiving English lessons?

Specify: _____

4. How would you describe your level of English?

elementary lower-intermediate intermediate upper-intermediate advanced

Part 2: Language mindsets and English language motivation questionnaire

Instructions: Below there are a number of statements about second language learning beliefs and motivation toward English language learning.

Please rate how much you personally agree or disagree with these statements. There is no right or wrong answer. I am interested in your ideas.

1	2	3	4	5
Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree

1 Beliefs about general language intelligence (GLB): 6 items

You have a certain amount of language intelligence, and you can't really do much to change it.

Your language intelligence is something about you that you can't change very much.

To be honest, you can't really change your language intelligence.

No matter who you are, you can significantly change your language intelligence level.

You can always substantially change your language intelligence.

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

2 Beliefs about second language learning (L2B): 6 items

To a large extent, a person's biological factors (e.g. brain structures) determine his or her abilities to learn new languages.

It is difficult to change how good you are at foreign languages.

Many people can never do well in foreign language even if they try hard because they lack natural language intelligence.

You can always change your foreign language ability.

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

How good you are at using a foreign language will always improve if you really work at it.

3 Beliefs about age sensitivity and language learning (ASB): 6 items

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

People can't really learn a new language well after they reach adulthood.

Even if you try, the skill level you achieve in a foreign language will advance very little if you learn it when you are an adult.

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

How well a person learns a foreign language does not depend on age; anyone who works hard can be a fluent speaker in that language.

Regardless of the age at which they start, people can learn another language well.

4 Ideal L2 self-items

These 6 items reflect learners' ideal image of the type of L2 users they aspire to be in the future.

If my dreams come true, I will use English effectively in the future (Ryan, 2009)

I can imagine myself speaking English with international friends or colleagues. (Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009) (similar to Ryan, 2009)

Whenever I think of my future, I imagine myself being able to use English. (Ryan, 2009; similar to: Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

I can imagine myself studying in a university where all my courses are taught in English. (Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

I can imagine myself writing English e-mails/letters fluently. (Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

I can imagine myself living abroad and using English effectively for communicating with the locals. (Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

5 Ought-to L2 self-items

These 6 items reflect learners' L2 attributes that they believe they must possess as a result of obligations or responsibilities.

I study English because close friends of mine think it is important. (Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

If I fail to learn English, I'll be letting other people down. (Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

I consider learning English important because the people I respect think that I should do it. (Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

Learning English is necessary because people surrounding me expect me to do so. (Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

Studying English is important to me because other people will respect me more if I have the knowledge of English. (Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

I have to study English, because, if I do not study it, I think my parents will be disappointed with me. (Taguchi et al., 2009)

6 Attitudes to learning English items

These 6 items reflect English learning experiences

Learning English is really great (Ryan, 2009)

I really enjoy learning English (Ryan, 2009; Taguchi et al., 2009)

I'm always looking forward to my English classes (Ryan, 2009) (similar to Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

I find learning English really interesting (Ryan, 2009; Taguchi et al., 2009)

I like the atmosphere of my English classes (Taguchi et al., 2009)

I would like to have more English lessons at school (similar to Papi, 2010; Papi & Teimouri, 2012; Taguchi et al., 2009)

Appendix E: Diary Entry Questions

Session 3: Please answer the following questions:

1. Think about the last three sessions:

- Session 1: Your brain is malleable!
- Session 2: Making mistakes
- Session 3: Don't be afraid of asking questions!

I am interested in your thoughts about these three sessions. Have they been helpful for you? Explain why (You can use English or Spanish. Write between 50 and 100 words).

2. What do you like about learning English? (You can use English or Spanish. Write between 50 and 100 words).

3. What difficulties (if any) do you encounter in the English classes? (You can use English or Spanish. Write between 50 and 100 words).

4. Have your beliefs about second language learning changed after these interventions? (You can use English or Spanish. Write between 50 and 100 words).

Session 6: Please answer the following questions:

1. Think about the last three sessions:

- Session 4: Love challenges
- Session 5: Failure
- Session 6: You can learn anything!

I am interested in your thoughts about these three sessions. Have they been helpful for you? Explain why (You can use English or Spanish. Write between 50 and 100 words).

2. What do you like about learning English? (You can use English or Spanish. Write between 50 and 100 words).

3. What difficulties (if any) do you encounter in the English classes? (You can use English or Spanish. Write between 50 and 100 words).

4. Have your beliefs about second language learning changed after these interventions? (You can use English or Spanish. Write between 50 and 100 words).

Session 9: Please answer the following questions:

1. Think about the last three sessions:

- Session 7: Language learning beliefs
- Session 8: Age-sensitivity beliefs
- Session 9: Beliefs on how to improve your skills and SMART goals

I am interested in your thoughts about these three sessions. Have they been helpful for you? Explain why (You can use English or Spanish. Write between 50 and 100 words).

2. What do you like about learning English? (You can use English or Spanish. Write between 50 and 100 words).

3. What difficulties (if any) do you encounter in the English classes? (You can use English or Spanish. Write between 50 and 100 words).

4. Have your beliefs about second language learning changed after these interventions? (You can use English or Spanish. Write between 50 and 100 words).

Session 12: Please answer the following questions:

1. Think about the last three sessions:

- Session 10: Strategies to develop reading and writing skills
- Session 11: Strategies to develop listening and speaking skills
- Session 12: Strategies to develop vocabulary and grammar

I am interested in your thoughts about these three sessions. Have they been helpful for you? Explain why (You can use English or Spanish. Write between 50 and 100 words).

2. What do you like about learning English? (You can use English or Spanish. Write between 50 and 100 words).

3. What difficulties (if any) do you encounter in the English classes? (You can use English or Spanish. Write between 50 and 100 words).

4. Have your beliefs about second language learning changed after these interventions? (You can use English or Spanish. Write between 50 and 100 words).

Appendix F: Documents to Analyse Academic Achievement Changes

Handout: Session 1

Activity: Write your SMART Goals for this English course

Specific	**Write down a specific challenging goal for this English course**
Measurable	**Write down how you will track your progress**.
Achievable	**Write down specific actions that will allow accomplishing this goal.** Make sure the goal is obtainable through these actions.
Realistic and Relevant	**Write down concrete actions that will help you to carry out the plan:** Where will you do it? (at school, at home, at the library) When will you do it? (write what specific days and times they will do it: after school, during weekends, on Tuesdays, on vacations) What concrete materials will you use? (English textbooks, English notebooks, online material, English songs, movies, poems, dictionaries, etc.) What strategies will you use? (Making connections, diagrams, making inferences, paying attention, making vocabulary webs, monitoring, evaluating, etc.)
Time-bound	**Write down when you expect to fulfil this goal** It has to be a specific date

Handout: Session 13

Name: _____

Activity: Revision and evaluation of your SMART Goals.

Have a look at the SMART Goals you set at the beginning of the course and answer the following questions:

1. Go to letters A (for achievable) and R (for Realistic and Relevant) and read the specific and concrete actions that would allow accomplish your goals. Have you been doing all these activities? Which activities have you done? Which activities have you not done? Explain why.

2. Read your specific goal. Did you achieve it?

If the answer is no, write down how much more time you need to achieve it. Does this date coincide with the specific date that you wrote in letter T (for Time-bound)?

If the answer is yes, you can now search for a new specific goal. Write down another SMART Goal.

3. Have you done any extra activities to achieve your goal? (Apart from the ones you decided to do at the beginning of this course)

If yes, write them down

4. In general, are you satisfied with what you have done so far to complete your goals? Do you think you have put enough effort into achieving what you want? If you are not satisfied, what other things do you believe you should do to achieve your goals?

Handout: Session 15

Activity: Let's reflect on your effort and progress and evaluate your language mindsets.

1. In your personal opinion, can you improve these domains?

Domain	**Yes, I can**	**No, I can't**	**I am not sure**
English language learning in general			
L2 speaking			
L2 pronunciation			
L2 writing			
L2 punctuation			
L2 reading comprehension			
L2 vocabulary learning			
L2 listening comprehension			
L2 grammar learning			

2. How much progress have you made in each of these domains? (Since we started the course)

Domain	**A lot of progress**	**Some progress**	**A little progress**	**No progress**
English language learning in general				
L2 speaking				
L2 pronunciation				
L2 writing				
L2 punctuation				
L2 reading comprehension				
L2 vocabulary learning				
L2 listening comprehension				
L2 grammar learning				

3. Think about how much effort you have put to improve your abilities:

Domain	A lot of effort	Some effort	A little effort	No effort
English language learning in general				
L2 speaking				
L2 pronunciation				
L2 writing				
L2 punctuation				
L2 reading comprehension				
L2 vocabulary learning				
L2 listening comprehension				
L2 grammar learning				

4. Have you used any strategy to improve these domains? If yes, write down the strategies you have used

Abilities	Yes	No
English language learning in general		
L2 speaking		
L2 pronunciation		
L2 writing		
L2 punctuation		
L2 reading comprehension		
L2 vocabulary learning		
L2 listening comprehension		
L2 grammar learning		

Reflect on your previous answers:

5. Is there any relationship between the areas you have improved and the effort you have put?

6. Is there any relationship between the areas you have not improved and the effort you have put?

7. Is there any relationship between your improvement, effort and the use of strategies?

8. What can you do to get better results in the areas you have not been able to improve?

Appendix G: Lesson Sample

Lesson Sample (Session 3)

Topic	Travelling
Aims	Develop listening comprehension skills Comprehend in what situations to use the present perfect tense
Growth Language Mindset Strategy	- Explain the benefits of learning English in a classroom -Listening strategy 1: Going beyond immediate data
Ability	Listening Comprehension
Vocabulary	Listening text: fabulous, appalling, noticeable, spacious, comparable, disastrous, unspoiled, scenic.
Grammar	Present Perfect 1
Class Profile	Secondary students
Level of English	A1-A2
Duration of lesson	1 hour
Materials	• Growth Mindset Strategy: PowerPoint Presentation: Benefits of learning English in a classroom. PowerPoint Presentation: Listening Strategy 1: Going beyond immediate data • Listening comprehension task: Audio file https://learnenglish.britishcouncil.org/skills/listening/advanced-c1/catching-up-after-a-trip Students' handout: Taken from https://learnenglish.britishcouncil.org/sites/podcasts/files/LearnEnglish-Listening-C1-Catching-up-after-a-trip.pdf • Grammar Task Video: https://www.youtube.com/watch?v=GWSMgJGRs3E PDF file about Present Perfect 1: Taken from the book: English Grammar in Use (Intermediate level) Raymond Murphy.

Stage / Task	Procedure	Time
Introduction	T. welcomes sts to the class and explains they will continue working with the topic: Travelling T. reminds students that even though travelling is a great way to learn and practice a new language, they can learn a new language in a classroom and refer to its benefits.	5
Pre-listening	T. tells sts they will start working on a listening comprehension activity and asks them what strategies they can use. T. mentions that they will put into practice the listening strategy 1: going beyond immediate data T. explains the importance of this strategy using a PowerPoint presentation. Preparation Task: Sts match some words to their definitions	10

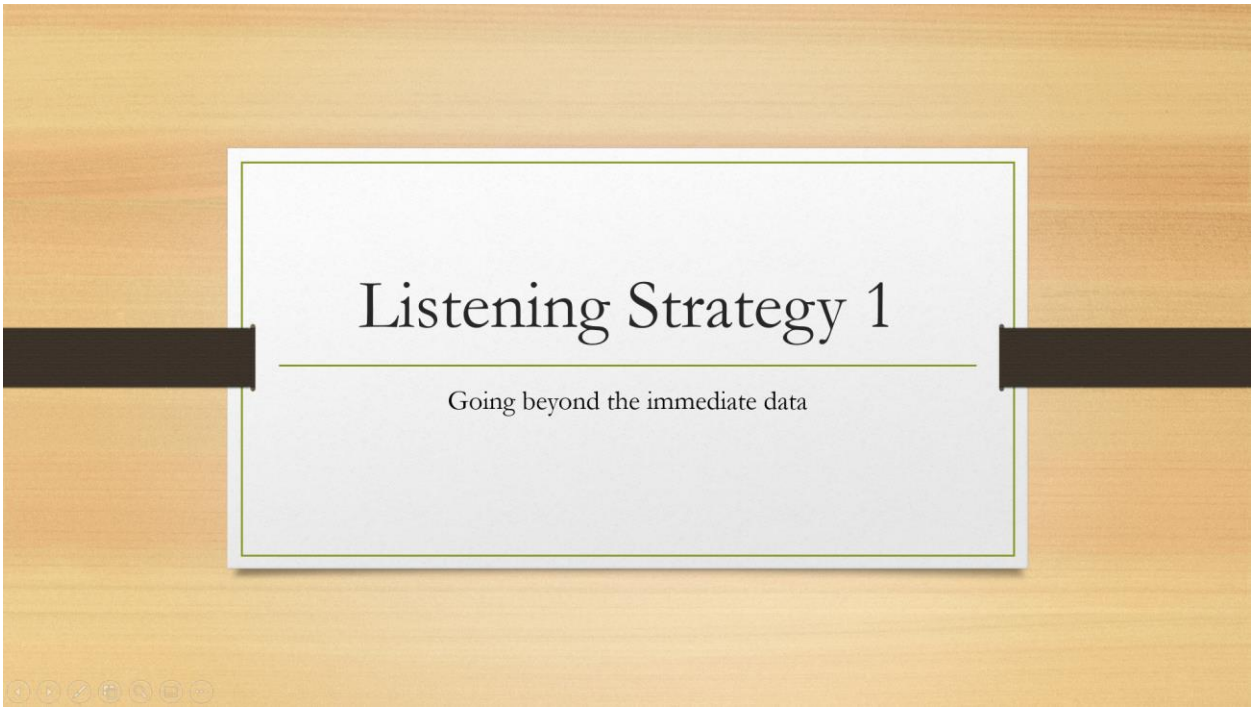
While-listening	Task 1: Sts have to write a number (1–8) to put the conversation topics in the order they are mentioned (5’) T. asks sts: Were your predictions right or wrong? Did you change them at some point? Task 2: Sts read some questions and circle the correct answer (5’) Sts listen to the conversation for the last time while reading the transcript to check answers (5’)	15
Post-listening	Grammar Focus: Present Perfect 1 T. asks sts to have a look at the transcript and identify which sentences are written in the present perfect tense. **You’ve spent a fortune on a long-distance call.** T. shows sts a video with songs to introduce the present perfect tense (5’) T. explains present perfect tense using a pdf file (10’) Sts. do exercises 7.1, 7.2 and 7.4 (10’)	25
Closing	T. asks sts to write down the structure for the present perfect. Three students voluntarily read their sentences	5

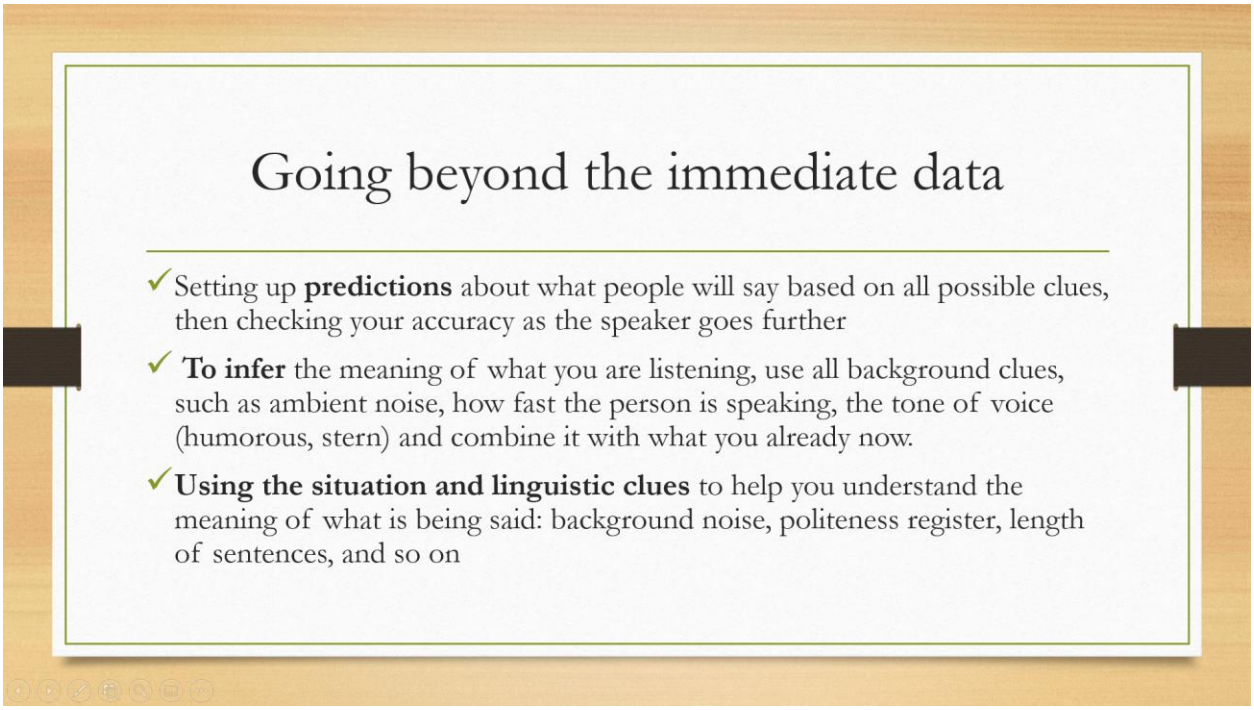
Growth Language Learning Mindsets

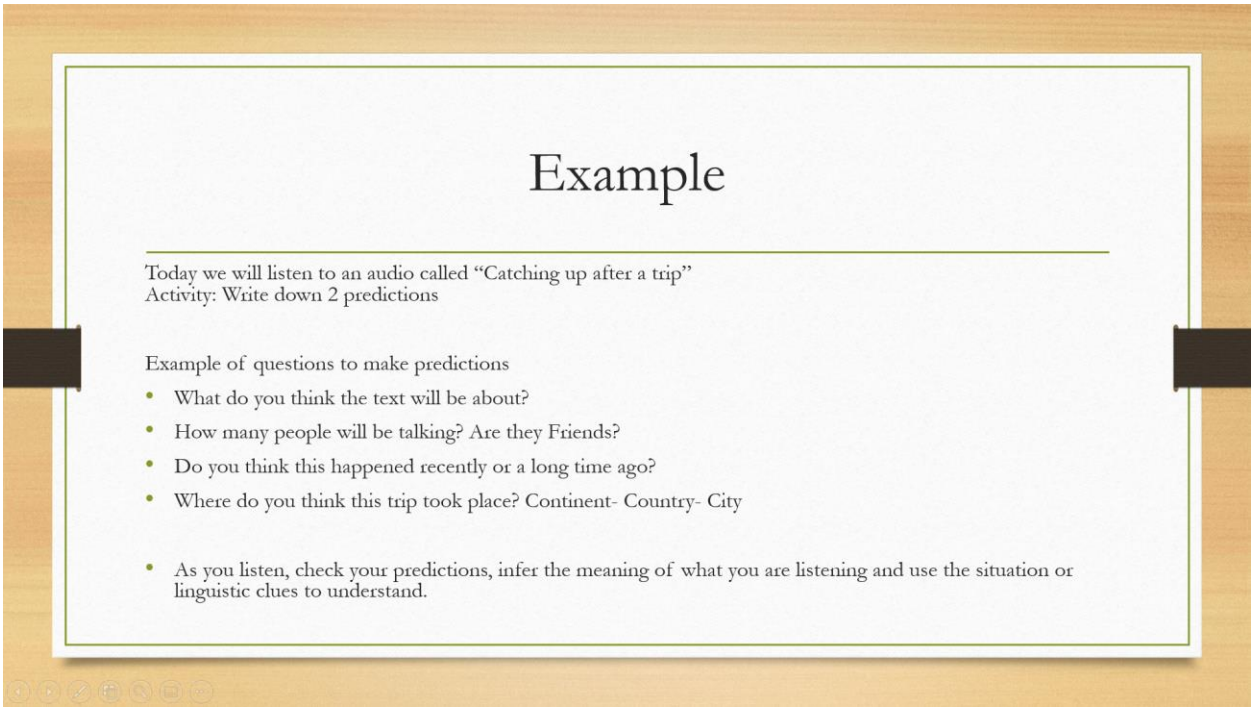
Benefits of learning English in a classroom

Benefits of classroom learning

- ✓ Safe environment
- ✓ Teacher's guidance
- ✓ Receive instant, personal feedback in class
- ✓ English-only environment
- ✓ Plenty of resources (library, online material, movies, songs, books, etc.)
- ✓ Cheap (Cheaper than travelling)


Listening Strategy 1
Going beyond the immediate data


Going beyond the immediate data
Setting up predictions about what people will say based on all possible clues, then checking your accuracy as the speaker goes further
To infer the meaning of what you are listening, use all background clues, such as ambient noise, how fast the person is speaking, the tone of voice (humorous, stern) and combine it with what you already now.
Using the situation and linguistic clues to help you understand the meaning of what is being said: background noise, politeness register, length of sentences, and so on


Example
Today we will listen to an audio called "Catching up after a trip"
Activity: Write down 2 predictions
Example of questions to make predictions
What do you think the text will be about?
How many people will be talking? Are they Friends?
Do you think this happened recently or a long time ago?
Where do you think this trip took place? Continent- Country- City
As you listen, check your predictions, infer the meaning of what you are listening and use the situation or linguistic clues to understand.

Listening: Catching up after a trip

Taken from https://learnenglish.britishcouncil.org/sites/podcasts/files/LearnEnglish-Listening-C1-Catching-up-after-a-trip.pdf

Listen to two friends talking about a recent trip abroad to practise and improve your listening skills.

Before listening

Do the preparation task first. Then listen to the audio and do the exercises.

Preparation task

Match the definitions (a–h) with the vocabulary (1–8).

Vocabulary Definition

1. …… fabulous
2. …… appalling
3. …… noticeable
4. …… spacious
5. …… comparable
6. …… disastrous
7. …… unspoiled
8. …… scenic

a. shocking and very bad
b. very unsuccessful; said of a situation where everything goes badly wrong
c. similar
d. extremely good
e. with a lot of space
f. giving a beautiful view of nature
g. easy to hear, see or feel
h. somewhere that has not been changed in a way that makes it less beautiful

Tasks

Task 1

Write a number (1–8) to put the conversation topics in the order they are mentioned.

The description of a holiday flat in Toronto

Rental flats in general

A rental in Barcelona

Long-distance phone calls

The weather in winter

Toronto neighbourhoods

The underground city

A house in the countryside

Task 2

Circle the best answer.

1. If Dave was abroad and saw a phone call from someone at home, he ...

a. wouldn’t answer it.

b. would be worried something had happened.

c. would think it was a work call.

2. When he first arrived in Toronto, Dave was a bit worried about ...

a. contacting his uncle.

b. his accommodation.

c. being mugged.

3. Jean’s friend had a problem in her holiday flat, because ...

a. it didn’t look like what was advertised.

b. the air conditioning didn’t work.

c. the neighbours were really noisy.

4. Dave’s apartment was ...

a. small but modern, with spectacular views.

b. comfortable and with a roof garden with spectacular views.

c. big, light and with spectacular views.

5. He particularly enjoyed the ...

a. green spaces.

b. shopping.

c. meeting of different cultures.

6. Dave thought the PATH was particularly good ...

a. as a shortcut when walking around the city.

b. for tasting many different types of food all in one place.

c. for keeping warm.

7. The temperature ...

a. can feel much lower because of the humidity.

b. can feel much lower because of the wind.

c. was unusually low for that time of year.

8. Dave’s uncle lives ...

a. in the suburbs of the city.

b. in an area that was more beautiful before it was affected by development work.

c. in a small house next to a lake.

Discussion

What was the last place you travelled to? Would you recommend it to a friend?

Transcript

Dave: Jean, hi!

Jean: Hi, Dave. How are you?

Dave: Good, good.

Jean: Wait a second, I'm not calling you in Canada, right? You're back now, aren't you?

Dave: Yeah, I got back two days ago.

Jean: Oh good, phew. Because I wouldn't want to be calling you long distance without realising it and suddenly ...

Dave: You've spent a fortune on a long-distance call. No, I know, it's OK. I actually wouldn't answer the phone while I was over there if I saw the call was coming from England. But no worries, we're in the same country now.

Jean: Yeah. So, how was the trip? Did you meet your long-lost uncle?

Dave: I did, actually. It was very good. I flew to Toronto and stayed there for a few days. At first I was really worried about my accommodation because I kept reading these appalling stories about rental flats going all wrong.

Jean: Oh, was it one of those?

Dave: Yeah.

Jean: My friend had a disastrous experience in Barcelona with one of them. The place didn't look anything like the photos, and all the neighbours hated that there was a holiday flat in their building. Awkward situation. Urgh.

Dave: Right. So, as I was saying, I was really worried because I heard these stories. And at first I couldn't find the place. Turns out I was in the wrong building. It was next door, and on the top floor, and … wow. Jean, this place was fabulous! Really spacious, with these floor-to-ceiling windows and the most scenic views of the city. I could see the lake and the whole city skyline and skyscrapers from my bedroom. I had to pinch myself to prove I wasn't dreaming.

Jean: Sounds pretty cool. So, what's it like? The city, I mean. I've always wanted to go to Canada.

Dave: It's nice. I mean, it's another big, vibrant, modern city. But it's really clean, and there's lots of parks. One of the things I liked was the multiculturalism. We visited Chinatown, Little Italy, Greektown, Little India … umm, I can't remember the others but it was sort of a new area every three or four blocks, you know?

Jean: Hey, is it true that there's a whole part of the city that's underground? I read that somewhere about Toronto, or saw it on some TV show.

Dave: It's true! I asked about that. They call it the PATH. There's, like, almost 30 kilometres of restaurants, shops, cinemas and stuff all underground. In the middle of the downtown area.

Jean: Amazing!

Dave: Yeah, but actually once you're down there it's not that noticeable. There's actually a lot of natural light. I forgot we were underground. It's mostly useful to get out of the cold weather.

Jean: What temperature was it while you were there?

Dave: It was still only November, but it was getting cold. We had at least a day where it was less than zero. My uncle told me that in January and February it can go down to 20 below zero.

Jean: Oh, wow. I think I'd die!

Dave: Yeah, and the worst thing was what they call the 'wind-chill' factor. So they say the temperature is zero degrees, but minus eight with the wind chill. So it feels like minus eight. And my uncle said the wind-chill factor can go down to minus 40.

Jean: Stop it! You're making me feel cold just thinking about it. So, how was meeting your uncle? The famous Uncle George.

Dave: That was great too. He lives outside of Toronto, in a cottage by a lake. Really tranquil and unspoiled nature.

Jean: I'm dying to see photos. You want to meet up soon? Or are you too jet lagged still?

Dave: Yeah, I'm actually free tomorrow if you like.

Answers

Preparation task

1. d
2. a
3. g
4. e
5. c
6. b
7. h
8. f

Task 1

1. Long-distance phone calls
2. Rental flats in general
3. A rental in Barcelona
4. The description of a holiday flat in Toronto
5. Toronto neighbourhoods
6. The underground city
7. The weather in winter
8. A house in the countryside

Task 2

1. a
2. b
3. a
4. c
5. c
6. c
7. b
8. c

7 Present perfect 1 (I have done)

A Study this example situation:

Tom is looking for his key. He can't find it.
He **has lost** his key.

He **has lost** his key = He lost it recently, and he still doesn't have it.

Have/has lost is the *present perfect simple*:

I/we/they/you **have** (= I'**ve** etc.)	**finished**
he/she/it **has** (= he'**s** etc.)	**lost**
	done
	been etc.

The present perfect simple is **have/has** + *past participle*. The past participle often ends in **-ed** (finish**ed**/decid**ed** etc.), but many important verbs are ***irregular*** (**lost/done/written** etc.).

For a list of irregular verbs, see **Appendix 1**.

B When we say that 'something **has happened**', this is usually new information:

- Ow! I'**ve cut** my finger.
- The road is closed. There'**s been** (there **has been**) an accident.
- (*from the news*) Police **have arrested** two men in connection with the robbery.

When we use the present perfect, there is a connection with ***now***. The action in the past has a result *now*:

- 'Where's your key?' 'I don't know. I'**ve lost** it.' (= I don't have it *now*)
- He told me his name, but I'**ve forgotten** it. (= I can't remember it *now*)
- 'Is Sally here?' 'No, she'**s gone** out.' (= she is out ***now***)
- I can't find my bag. **Have** you **seen** it? (= Do you know where it is *now*?)

C Note the difference between **gone** (**to**) and **been** (**to**):

- James is on holiday. He **has gone to** Italy. (= he is there now or on his way there)
- Jane is back home now. She **has been to** Italy. (= she has now come back)

D You can use the present perfect with **just**, **already** and **yet**.

Just = a short time ago:

- 'Are you hungry?' 'No, I'**ve just had** lunch.'
- Hello. **Have** you **just arrived**?

We use **already** to say that something happened sooner than expected:

- 'Don't forget to pay your electricity bill.' 'I'**ve already paid** it.'
- 'What time is Mark leaving?' 'He'**s already left**.'

Yet = until now. **Yet** shows that the speaker is expecting something to happen. Use **yet** only in questions and negative sentences:

- **Has** it **stopped** raining **yet**?
- I've written the email, but I **haven't sent** it **yet**.

E You can also use the past simple (**did**, **went**, **had** etc.) in the examples on this page. So you can say:

- 'Is Sally here?' 'No, she **went** out.' *or* 'No, she'**s gone** out.'
- 'Are you hungry?' 'No, I **just had** lunch.' *or* 'No, I'**ve just had** lunch.'

Present perfect ➜ **Unit 8, Unit 11** **Been to** ➜ **Unit 8A, Unit 126A** Present perfect continuous ➜ **Units 9–10**
Present perfect and past ➜ **Units 12–14** **Yet** and **already** ➜ **Unit 111** American English ➜ **Appendix 7**

Unit 7

Exercises

7.1 Read the situations and write sentences. Use the following verbs in the present perfect:

arrive **break** **fall** **go up** **grow** **improve** ~~**lose**~~

1 Tom is looking for his key. He can't find it. Tom has lost his key.
2 Lisa can't walk and her leg is in plaster. Lisa .....
3 Last week the bus fare was £1.80. Now it is £2. The bus fare .....
4 Maria's English wasn't very good. Now it is better. Her English .....
5 Dan didn't have a beard before. Now he has a beard. Dan .....
6 This morning I was expecting a letter. Now I have it. The letter .....
7 The temperature was 20 degrees. Now it is only 12. The .....

7.2 Put in **been** or **gone**.

1 James is on holiday. He's gone to Italy.
2 Hello! I've just ..... to the shops. I've bought lots of things.
3 Alice isn't here at the moment. She's ..... to the shop to get a newspaper.
4 Tom has ..... out. He'll be back in about an hour.
5 'Are you going to the bank?' 'No, I've already ..... to the bank.'

7.4 Read the situations and write sentences with **just**, **already** or **yet**.

1 After lunch you go to see a friend at her house. She says, 'Would you like something to eat?'
You say: No thank you. I've just had lunch . (have lunch)
2 Joe goes out. Five minutes later, the phone rings and the caller says, 'Can I speak to Joe?'
You say: I'm afraid ..... . (go out)
3 You are eating in a restaurant. The waiter thinks you have finished and starts to take your plate away. You say: Wait a minute! ..... . (not / finish)
4 You plan to eat at a restaurant tonight. You phoned to reserve a table. Later your friend says, 'Shall I phone to reserve a table?' You say: No, ... (do it)
5 You know that a friend of yours is looking for a place to live. Perhaps she has been successful. Ask her. You say: ..... ? (find)
6 You are still thinking about where to go for your holiday. A friend asks, 'Where are you going for your holiday?' You say: ..... . (not / decide)
7 Linda went shopping, but a few minutes ago she returned. Somebody asks, 'Is Linda still out shopping?' You say: No, ... (come back)

Appendix H: General Plan of 24 Lessons

Class / Date	Main Ability	Topic	Vocabulary	Grammar	Growth Mindset Strategy
Lesson 1 Monday 13 July	Writing	Introduction to the course Goals	Related to students' goals		-Explain the importance of having a growth mindset. - Emphasise the importance of challenge and setting SMART goals.
Lesson 2 Wednesday 15 July	Reading	Travelling	Vocabulary related to the reading text (but, amazing, because, favourite, beautiful, history, historic, beauty, supermarket, and, so)	Conjunctions of contrast (although, though, even though, despite, in spite of)	-Explain that even though travelling is an excellent way to learn and practice a new language, it is possible to learn a new language in a classroom. -Reading strategy 1: Predicting
Lesson 3 Friday 17 July	Listening	Travelling	Vocabulary related to the listening text (fabulous, appalling, noticeable, spacious, comparable, disastrous, unspoiled, scenic)	Present Perfect	-Explain the benefits of learning English in a classroom. -Listening strategy 1: Going beyond immediate data
Lesson 4 Monday 20 July	Listening	Travelling	Vocabulary related to the listening text	Modal Verbs (may/might)	-Provide constructive feedback (About students' pre-English test) -Emphasise the importance of making mistakes and reacting positively to them.

					-Listening strategy 2: Using the senses to understand and remember (1)
Lesson 5 Wednesday 22 July	Writing	Travelling	As / by and until / by the time / for, during, while / in case / like and as / like, as if, as though / unless, as long as, provided, providing.	Adjectives Conjunctions	-Explain the power of the word "YET" -Writing strategy 1: Using steps for writing
Lesson 6 Friday 24 July	Listening	Films	Related to film reviews: a character, pace, a sequel, to set, a poster, special effects, to cast, the plot	Present and Past Tenses	-Explain the importance of setting challenges -Listening strategy 3: Conceptualising with details
Lesson 7 Monday 27 July	Writing	Films	Verbs in past simple and past participle	Present Perfect and Past simple	-Provide constructive feedback using proper language according to students' effort (about students' SMART Goals) -Emphasise the importance of SMART goals -Writing strategy 2: Using a functional approach
Lesson 8 Wednesday 29 July	Listening	Music	Verbs in past participle	Present Perfect	-Explain the importance of effort to fulfil your goals -Listening Strategy 4: Using the senses to understand and remember (2)

Lesson 9 Friday 31 July	Reading	Music	Related to the reading text (Exponentially, countless, renowned, quagmire, undeterred, wellies, demise, substantial)	Adjectives and Adverbs	-Remember: You can learn anything! -Reading Strategy 2: Scanning
Lesson 10 Monday 3 August	Listening	Sports	Related to the listening text (despite, come in handy, to negotiate, to motivate, at the end of the day, to outweigh, easier said than done, to move on)	Pronouns and Determiners	-Provide constructive feedback using proper language according to students' effort and progress (about students' pieces of writing) -Grammar Strategy 1: Conceptualising with details
Lesson 11 Wednesday 5 August	Reading	Sports	Reading text (informal expressions: he's not really into it; I can't get enough of it; I reckon; I'll end up; It's cool; little kids; mates.)	Phrasal Verbs	-Emphasise the importance of making mistakes and reacting positively to them. -Reading Strategy 2: Scanning -Vocabulary Strategy 1: Different Strategies
Lesson 12 Friday 7 August	Listening	Food	Related to the listening text (Food: lamb, chops, cheese, full English breakfast, curry, potatoes, tomatoes, chips, peas)	Reported Speech	-Explain about the power of the malleability of the brain. -Listening Strategy 5: Paying attention and Selective attention
Lesson 13	Listening	Food	Related to the listening text (to get dressed up,	Reported Speech	-Evaluation of progress and activities to fulfil

Monday 10 August			an olive, the staff, a heatwave, wool, to book a table, a dish, a once-in-a-lifetime experience)		their SMART Goals. (Report) -Listening Strategy 6: Planning
Lesson 14 Wednesday 12 August	Listening	Food	Verbs in past participle: cooled / produced / stirred / made / poured / heated / mixed / stored / sent out	Passive	-Emphasise the importance of challenges -Listening Strategy 7: Evaluating
Lesson 15 Friday 14 August	Reading	Food	Related to the reading text (a pod, a shell, pulp, to heat, to cool, to melt, to grind, to ferment)	Countable/ Uncountable Nouns	-Reflect on your effort and progress, and evaluate your language mindsets. -Reading Strategy 3: Skimming
Lesson 16 Monday 17 August	Listening	Problems	Related to the listening text (break down, fail an exam, break up)	Modal verbs: should, ought to, have to	-How to deal with problems and failure
Lesson 17 Wednesday 19 August	Listening	Problems	Related to the listening text (anxiety, to dread, a symptom, a panic attack, to hyperventilate, a distraction, to spin, together)	Articles	-How to deal with problems and failure
Lesson 18 Friday 21 August	Reading	Problems	Related to the reading text (to learn the ropes, to give someone a heads-up, to	Phrasal Verbs (on / off – up/down)	-Provide constructive feedback using proper language according to students' effort and

			touch base with someone, to feel stretched, to feel pulled in both directions, to have a smooth-sailing experience, to move the goalposts, to see the big picture)		progress (about students' report on their progress) -Reading Strategy 4: Obtaining and using resources
Lesson 19 Monday 24 August	Listening	Crimes	Related to the listening text (forensic, arrest, case, clues, commit, guilty, prison, solve, criminal, detective, murderer, prisoner, robber, thief, victim, witness)	Relative Clauses	-Language mindsets related to L2 grammar learning -Grammar Strategy 2: Paying attention and Reasoning
Lesson 20 Wednesday 26 August	Reading	Crimes	Related to the reading text (will, suicide, decorator, escape, mentally, hide, gang, court)	Verb + ing / verb + to	-Language mindsets related to L2 reading comprehension and vocabulary learning -Reading Strategy 5: Implementing plans
Lesson 21 Friday 28 August	Listening	Crimes	Related to the listening text (killer, mystery, find out, clues, game, detectives, pretend, solve)	Modal Verbs (must and can't; have to and must; must, mustn't, needn't)	-Language mindsets related to L2 listening comprehension
Lesson 22 Monday 31 August	Reading	Crimes	Related to the reading text (to swap, identical, a trial, to pretend, to fail,	Prepositions : at/ on /in (time); on time / in	-Language mindsets related to L2 writing and punctuation -Learn about the malleability of the brain

			to arrest, to play truant, a birthmark, to get into trouble, an alibi)	time; in/at/on (position)	-Emphasise the importance of effort
Lesson 23 Wednesday 2 September	Writing	Plans	Related to future plans	Future Tenses (present simple – will – going to – present continuous)	-Language mindsets related to L2 speaking and pronunciation -Speaking Strategies -Remember: You can improve all your language learning abilities.
Lesson 24 Friday 4 September	Speaking	Plans	Related to future plans	Future Tenses (present simple – will – going to – present continuous)	-Understand the value of mistakes -Understand the importance of having a growth mindset

Appendix I: Samples of the Pre-English Test

1

A The bicycle that's for sale was built for a child.

B Some parts of the bicycle must be changed.

C Debbie is selling the bike because she's too big for it now.

2

A Tim thinks Ben should look on the concert website.

B Tim hopes that Ben will be able to come with him.

C Tim wants to know if Ben can pay him back today.

The Test Samples (reading and writing, listening and speaking papers) can be downloaded from the following link: https://www.cambridgeenglish.org/exams-and-tests/key/exam-format/

The actual test the students answered can be found in the following Google Forms links:

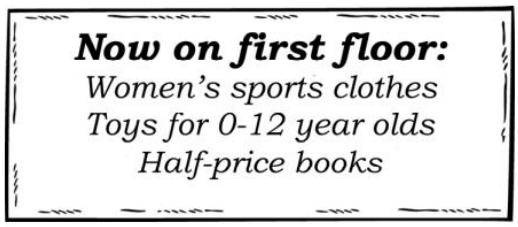
Pre-Reading and Writing Tests: https://forms.gle/cdmdRdiGQQnc24VMA

Pre-Listening Test: https://forms.gle/jdDtkGK7MYLKmMq47

Pre-Speaking Test: https://forms.gle/MN9rg5fTttKWM42p9

Appendix J: Samples of the Post-English Test

1



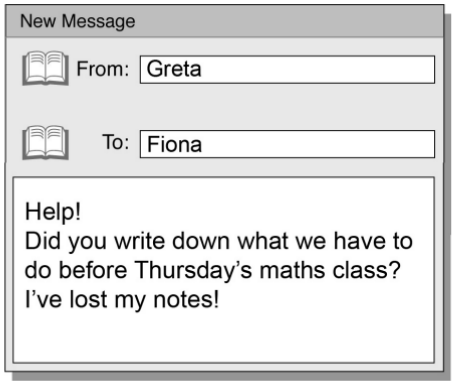
Go upstairs if you want to

A buy a dress for a party.

B pay less for something to read.

C find a game for a teenager.

2



A Greta has forgotten when the next maths class is.

B Greta hopes Fiona will help her find her maths notes.

C Greta wants to know what the maths homework is.

The Test Samples (reading and writing, listening and speaking papers) can be downloaded from the following link: https://www.cambridgeenglish.org/exams-and-tests/key-for-schools/exam-format/

The actual test the students answered can be found in the following Google Forms links:

Post-Reading and Writing Tests: https://forms.gle/2z1B9B6Ka1YLwC798

Post-Listening Test: https://forms.gle/KkmUA3mx8d65jDMP6

Post-Speaking Test: https://forms.gle/vUm1ek56XJVXeXqF8

Appendix K: Invitation E-mail

Dear Headteacher,

I am writing to you to invite your school to participate in an online intervention to promote language learning mindsets in the academic year 2020. I am Claudia Tapia, a Chilean teacher of English, and currently, I am doing a PhD in English Language Teaching at the University of Essex in the United Kingdom. I am recruiting schools that would like to participate in this innovative intervention which intends to develop growth language mindsets in secondary students. Language mindsets are a psychological construct which is related to the beliefs that we have concerning language learning. Growth language mindsets suggest that learning a new language is possible as long as one puts a lot of effort and works hard for it. Growth mindsets are associated with increased motivation and better academic achievement.

In this intervention, students will receive materials and activities that will allow them to eliminate incorrect beliefs that might prevent them from learning English and will comprehend that they are all able to be successful language learners.

Students will receive:

- Twelve online sessions to develop growth language mindsets. The sessions will include information about the malleability of the brain, second language learning beliefs, examples of famous people who have learned a new language, and strategies to develop language learning skills, such as vocabulary, reading, and writing.

To evaluate the intervention, I will need teachers and students to answer some questionnaires:

- Teachers will be asked to complete a questionnaire about second language learning beliefs.

- Students will have to answer questionnaires about second language learning beliefs and motivation toward English learning before and after the intervention and provide some written feedback on four occasions.

- In addition to this, I will need to have access to the students' English average for the 2019 academic year.

It is also necessary that students have an email account and use a computer to access the materials. Students will have to do the sessions on the following dates:

Month	Week	Session	Time
April	(1-4)	**Questionnaire N° 1** (pre-test questionnaire)	Between 10 and 15 minutes
May	1	**Sessions** 1, 2 y 3	15 minutes per session / 45 minutes in total
	2		
	3	**Sessions** 4, 5 y 6	15 minutes per session / 45 minutes in total
	4		
June	1	**Sessions** 7, 8 y 9	15 minutes per session / 45 minutes in total
	2		
	3	**Sessions** 10, 11 y 12	15 minutes per session / 45 minutes in total
	4	**Questionnaire N°2** (post-test questionnaire)	Between 10 and 15 minutes
September		**Questionnaire N°3** (delayed post-test questionnaire)	Between 10 and 15 minutes

All information collected will be anonymous and will remain completely confidential.

If you are interested in participating or if you have any further question about this intervention, please email me at ct17370@essex.ac.uk

Thank you in advance for your time and good disposition.

Best regards,

Claudia Tapia Castillo

PhD student

University of Essex

Appendix L: Answer Keys of Pre-and-Post-reading and listening Tests

Pre-reading

Part 1

1b 2c 3b 4a 5b 6c

Part 2

7c 8b 9a 10b 11c 12c 13a

Part 3

14b 15a 16c 17b 18a

Part 4

19b 20b 21a 22b 23b 24c

Part 5

25 a/this

26 in/during

27 of

28 go

29 play/watch

30 when/after

Pre-listening

Part 1

1a 2c 3c 4a 5a

Part 2

6 August

7 19

8 drive

9 65

10 photograph

Part 3

11b 12a 13c 14b 15b

Part 4

16a 17b 18c 19b 20a

Part 5

21F 22C 23A 24D 25H

Post-reading

Part 1

1b 2c 3a 4a 5b 6b

Part 2

7b 8c 9b 10a 11c 12a 13c

Part 3

14b 15c 16a 17c 18b

Part 4

19c 20b 21a 22c 23b 24b

Part 5

25 your/the

26 is

27 lot

28 on

29 they

30 to

Post-listening

Part 1

1c 2a 3c 4a 5a

Part 2

6 fairford

7 Friday

8 7.30

9 train

10 boots

Part 3

11b 12a 13c 14b 15a

Part 4

16b 17c 18b 19a 20b

Part 5

21E 22F 23G 24A 25B

Appendix M: Assessment Scales and Examples of Corrections of Writing and Speaking Tests

Writing: Assessment Scale

Mark scheme for Writing Part 6 and 7

Band	
5	All parts of the message are fully communicated. The language used allows the reader to easily understand the whole message. The organisation allows the reader to easily understand the whole message.
4	*Writing at this band has a combination of elements from Bands 3 and 5.*
3	One element of the message is omitted or unclear. The other elements are clearly communicated. The language used allows the reader to understand some of the message. The organisation allows the reader to understand some of the message.
2	*Writing at this band has a combination of elements from Bands 1 and 3.*
1	Two elements of the message are omitted or unclear. Very little of the message is communicated. The language used means the reader understands very little of the message. The organisation used means the reader understands very little of the message.
0	Text is totally irrelevant. The reader understands none of the message.

Example of Writing Test Feedback

Name: _____ (21/30 points)

Assessment of Writing Part 6 and 7. Maximum points: 30 (15 each question)

Comments:

Part 6 (email) Band 4 (12 points)

Well done! You included all the information you were told to write and the email can be understood. You made some mistakes related to the following aspects:

- Capital letters: Remember that the word "I" is always written with capital letter.
- You wrote "…i can go to swimming…" You can write: "…I can go swimming…" or "…I can go to swim…" Remember: Swimming (Noun) – Swim (Verb).

Part 7 (story) Band 3 (9 points)

Very good! You were able to create a story using all the pictures. You just made some mistakes related to the following aspects:

- Punctuation (commas, periods)
- Capital letters: Remember that the word "I" is always written with capital letter.
- Word choice: You wrote "…go to the coffee" You should write "…go to the cafeteria"
- Countable nouns: the word "job" is a countable noun. You wrote: "I need job very fast". You should

Mark scheme for Writing Part 6 and 7

Band	
5	All parts of the message are fully communicated. The language used allows the reader to easily understand the whole message. The organisation allows the reader to easily understand the whole message.
4	*Writing at this band has a combination of elements from Bands 3 and 5.*
3	One element of the message is omitted or unclear. The other elements are clearly communicated. The language used allows the reader to understand some of the message. The organisation allows the reader to understand some of the message.
2	*Writing at this band has a combination of elements from Bands 1 and 3.*
1	Two elements of the message are omitted or unclear. Very little of the message is communicated. The language used means the reader understands very little of the message. The organisation used means the reader understands very little of the message.
0	Text is totally irrelevant. The reader understands none of the message.

Speaking: Assessment Scale

This mark is multiplied by 3:

Band	Global achievement
5	Handles communication in everyday situations, despite hesitation. Constructs longer utterances but is not able to use complex language except in well-rehearsed utterances.
4	Performance shares features of Bands 3 and 5.
3	Conveys basic meaning in very familiar everyday situations. Produces utterances which tend to be very short – words or phrases – with frequent hesitation and pauses.
2	Performance shares features of Bands 1 and 3.
1	Has difficulty conveying basic meaning even in very familiar everyday situations. Responses are limited to short phrases or isolated words with frequent hesitation and pauses.
0	Performance below Band 1.

These marks are multiplied by 2:

A2	Grammar and vocabulary	Pronunciation	Fluency
5	Shows a good degree of control of simple grammatical forms. Uses a range of appropriate vocabulary when talking about everyday situations.	Is intelligible. Intonation is generally appropriate. Sentence and word stress is generally accurately placed. Individual sounds	Smooth and fluid speech; few to no hesitations; no attempts to search for words; volume is excellent. Speaks with confidence.
4	Performance shares features of Bands 3 and 5.	Performance shares features of Bands 3 and 5.	Performance shares features of Bands 3 and 5.
3	Shows sufficient control of simple grammatical forms. Uses appropriate vocabulary to talk about everyday situations.	Is mostly intelligible, despite limited control of phonological features.	Speech is relatively smooth; some hesitation and unevenness caused by rephrasing and searching for words; volume wavers.
2	Performance shares features of Bands 1 and 3.	Performance shares features of Bands 1 and 3.	Performance shares features of Bands 1 and 3.
1	Shows only limited control of a few grammatical forms. Uses a vocabulary of isolated words and phrases.	Has very limited control of phonological features and is often unintelligible.	Speech is slow, hesitant & strained except for short memorized phrases; difficult to perceive continuity in speech; inaudible.
0	Performance below Band 1.	Performance below Band 1.	Performance below Band 1.

Example of Speaking Test Feedback

Name: _____

Speaking Rubric. Maximum points: 45

Global Achievement	Band: 4	(x3) 12
Grammar and Vocabulary	Band: 4	(x2) 8
Pronunciation	Band: 3	(x2) 6
Fluency	Band: 3	(x2) 6
Total		**32**

Comments:

Well done! I love your goals ☺

Please consider the following aspects to improve your speaking skill:

Pronunciation:

- Try to differentiate between /ch/ and /sh/ sounds.

- /ch/ (the sound we use to say Chile)
- /sh/ (the sound we make to tell someone to be in silence)

- Pronounce all the ends of the words

Appendix N: Previous and Final Themes and Codes

1. Previous Language learning mindsets' themes and codes

Codes	Themes
▪ My beliefs changed from fixed to growth (102) ▪ The sessions helped to confirm my growth language mindset (19) ▪ English difficulties are faced with a growth mindset solution (57) ▪ I already had a growth language mindset (48)	Growth language learning mindsets (226)
▪ English difficulties are seen with a fixed mindset perspective (4) ▪ Fixed mindsets related to age-sensitivity beliefs (2)	Fixed language learning mindsets (6)
▪ Unwillingness to work hard (3) ▪ We all have different capacities (2) ▪ Test anxiety (1)	Objections to growth language learning mindsets (6)

Sub-codes	Code
▪ My beliefs have changed (24) ▪ Now I believe I can learn a new language (15) ▪ Age-sensitivity beliefs (22) ▪ Varied growth mindset topics (15) ▪ Effort, hard work and persistence (10) ▪ Failure and mistakes (9) ▪ It is possible to learn English in a classroom (5) ▪ Brain malleability (2)	My beliefs changed from fixed to growth (102)

Sub-codes	Code
▪ Effort (39) ▪ Varied growth mindset strategies (12) ▪ Asking questions (4) ▪ Learn from mistakes (2)	▪ English difficulties are faced with a growth mindset solution (57)

Sub-codes	Code
▪ We can all learn English (19) ▪ Effort and perseverance (17) ▪ My motivation increased (5) ▪ Varied growth mindset topics (3) ▪ Age-sensitivity beliefs (2) ▪ Failure and mistakes (2)	I already had a growth language mindset (48)

2. Final Language learning mindsets' themes and codes

Themes	Codes
The sessions facilitated the development of growth language mindsets	Change of language learning beliefs Change of age-sensitivity beliefs Change of beliefs due to varied growth mindset topics Change of beliefs after understanding that everything is possible with effort, hard work and persistence Change of beliefs after understanding that failure and mistakes are part of the learning process Change of beliefs after understanding that it is possible to learn English in classrooms of non-English speaking countries
Some students already had a growth language mindset	The sessions helped to strengthen existing growth mindsets I already knew we can all learn English I already knew the importance of effort and perseverance English difficulties are faced with a growth mindset solution
The sessions helped elucidate some counterarguments to the growth language mindsets theory	Unwillingness to work hard We all have different capacities

3. Previous L2 motivation themes and codes

Codes	Themes
Similar to items 4.2, 4.4 and 4.5 in the L2MSS Questionnaire: ▪ Future opportunities, such as travel, study, and work (76) **Similar to items 4.2 and 4.6 in the L2MSS Questionnaire:** ▪ Talk to people from other countries (14) ▪ Learn about different cultures (6) **Similar to items 4.1, 4.3 and 4.5 in the L2MSS Questionnaire:** ▪ English improvement (13)	**Ideal L2 (109 extracts)**
Different from the items in the L2MSS Questionnaire: ▪ Obligations and responsibilities (2)	**Ought-to L2 (2 extracts)**
Similar to items 6.1 and 6.4 in the L2MSS Questionnaire: ▪ Expand my knowledge (33) ▪ English is a beautiful language (24) ▪ English is a useful language (12) ▪ Challenge myself (10) ▪ Communicate with people in English (9) ▪ Varied methods to learn English (7) ▪ My brain grows (2) **Similar to items 6.2 and 6.5 in the L2MSS Questionnaire:** ▪ The sessions included helpful and enjoyable activities (19) ▪ The sessions included motivating activities (5) ▪ Concerning the COVID-19 situation (5) **Different from the items in the L2MSS Questionnaire:** ▪ Learn a third language (10) ▪ Learning English is easy for me (6) ▪ Autonomy development (11)	**Attitudes to learning English (153extracts)**

2. Final L2 motivation themes and codes

Themes	Codes
The Ideal L2 self drives students' motivation to learn English	English as giving hope for better future opportunities, such as travel, study, and work English as a means of building multicultural communication in the future English improvement for future entertainment purposes
Attitudes to learning English drive students' motivation to learn English	Realising English language improvement (for different purposes) English is a beautiful language English is a useful international language I like the challenge of learning English Communicating with others in English Varied methods to learn English
The sessions helped increase students' L2 motivation	The sessions included helpful and enjoyable content and activities The sessions included motivating activities The sessions increased students' language learning motivation Sessions changed the type of English motivation: from obligations and responsibilities to fulfil own dreams
The sessions were helpful beyond L2 motivation	The sessions facilitated English development The sessions helped students to become more autonomous learners

Previous academic achievement themes and codes

Codes	Theme
Set challenging goals Plan to achieve challenging goals Commitment to continuing working hard English improvement due to effort Growth language mindset in general and for specific domains Hard work and effort to accomplish their goals Noticing English development Noticing English development due to hard work Use of language learning strategies Effort and strategies influenced my development	Academic achievement improvement

Final academic achievement themes and codes:

Codes	Theme
Code 1: Hard work and effort to accomplish goals Code 2: Use of language learning strategies to fulfil goals Code 3: Effort and the use of strategies influenced English development	Strategies to develop growth language learning mindsets facilitated English development

Appendix O: Example of Inter-coder Agreement

1. Codes for language mindsets

Researcher's codes	Second coder's codes	Final codes
Code: Growth language learning mindsets Sub-code: The sessions helped to confirm my growth language mindset	Sessions reinforced existing beliefs Sessions reinforced beliefs; more positive mindset; hard work matters	The sessions helped to strengthen existing growth mindsets
Code: Objections to growth language learning mindsets Sub-code: We all have different capacities	Everyone shines with their own light Not everyone can learn anything	We all have different capacities
Code: My beliefs changed from fixed to growth Sub-code: My beliefs have changed	Sessions are helpful and change beliefs Myths debunked	Change of language learning beliefs
Code: My beliefs changed from fixed to growth Sub-code: Varied growth mindset topics	Feeling safe when learning	Change of beliefs due to varied growth mindset topics
Code: My beliefs changed from fixed to growth Sub-code: Effort, hard work and persistence	Changed beliefs; you can do anything with effort and willingness	Change of beliefs after understanding that everything is possible with effort, hard work and persistence
Code: My beliefs changed from fixed to growth Sub-code: Failure and mistakes	Building resilience Building confidence Building temperance, perseverance Mistakes are part of learning Failure can be a good thing; helpful sessions	Change of beliefs after understanding that failure and mistakes are part of the learning process
Code: My beliefs changed from fixed to growth Sub-code: It is possible to learn English in a classroom	Travelling is not the only way to learn a language	Change of beliefs after understanding that it is possible to learn English in classrooms of non-English speaking countries

Code: English difficulties are faced with a growth mindset solution	Very positive mindset despite all the difficulties Seeking help from others or the internet	Code: English difficulties are faced with a growth mindset solution
Code: I already had a growth language mindset Sub-code: We can all learn English	No change; English allows more work and other opportunities Anyone can learn	I already knew we can all learn English
Code: I already had a growth language mindset Sub-code: Effort and perseverance	Effort, persistence matter. Same beliefs. Commitment and effort matter Willingness, effort, and patience No change in belief (already in a growth mindset; practicing matters)	I already knew the importance of effort and perseverance

2. Codes for motivation

Researcher's codes	**Second coder's codes**	**Final codes**
Code: Ideal L2 Sub-code: Future opportunities, such as travel, study, and work	English can allow more travel and work opportunities. English as a global language Loving the language itself English can allow more (and better) work opportunities. Change of beliefs; learning English to communicate, learn, travel	English as a hope of better future opportunities, such as travel, study, and work.
Code: Ideal L2 Sub-code: Talk to people from other countries	Building multicultural communication Communicating with others	English as a mean to building multicultural communication in the future
Code: Ideal L2 Sub-code: Learn about different cultures	Communicating/knowing others Connecting with other cultures	English as a mean to building multicultural communication in the future

Code: Ideal L2 Sub-code: English improvement	English for entertainment purposes Broadening vocabulary	English improvement for future entertainment purposes
Code: Attitudes to learning English Sub-code: Expand my knowledge	Realising progress in action Understanding others Liking the English/American culture English for entertainment Understanding input in English	Realising English language improvement (for different purposes)
Code: Attitudes to learning English Sub-code: English is a beautiful language	Loving the language itself Liking English as a language and its sound.	English is a beautiful language
Code: Attitudes to learning English Sub-code: English is a useful language	English is useful. English can allow more work and travel opportunities. Communicating with others English is useful. English as a global language	English is a useful international language
Code: Attitudes to learning English Sub-code: Challenge myself	Satisfied with having progress and being able to understand Language learning as a challenge	I like the challenge of learning English
Code: Attitudes to learning English Sub-code: Communicate with people in English	Communicating with others Communicating with other(s) (cultures) English for entertainment and communication purposes	Communicating with others in English
Code: Attitudes to learning English Sub-code: Varied methods to learn English	Different modes of learning a language	Varied methods to learn English
Code: Attitudes to learning English Sub-code: The sessions included helpful and enjoyable activities	Memorable materials Engaging content/format/medium Content itself is interesting Engaging format of content Content was interesting	The sessions included helpful and enjoyable content and activities

	Educational content, engaging format New vocabulary; supportive and encouraging materials Learning from challenges; putting effort	
Code: Attitudes to learning English Sub-code: The sessions included motivating activities	Motivating materials	The sessions included motivating activities
Code: Attitudes to learning English Sub-code: Concerning the COVID-19 situation	Motivational aspect	The sessions included motivating activities
Code: Attitudes to learning English Sub-code: Learn a third language	Same beliefs; previous hard experiences with German Feeling motivated	The sessions increased students' language learning motivation
Code: I already had a growth language mindset Sub-code: My motivation increased	Support has boosted motivation for learning a language Motivating sessions	The sessions increased students' language learning motivation
Code: Attitudes to learning English Sub-code: Autonomy development	Immersing oneself in a language is better than staying with translations Encouraging and motivating sessions	The sessions helped students to become more autonomous learners

3. Codes for language mindsets

Researcher's codes	**Second coder's codes**	**Final codes**
Hard work and effort	The effort put is in alignment with progress seen	Hard work and effort to accomplish goals.
Use of strategies	The strategies used are aligned with the skills developed or seen most progress on	Use of language learning strategies to fulfil goals
Effort and strategies influenced my development	Consistent effort and use of strategies to achieve results	Effort and the use of strategies influenced English development

Appendix P: Growth Mindset Framing Tool

Taken from: https://s3-us-west-1.amazonaws.com/mindset-net-site/FileCenter/MM_Feedback-and-Framing-Tool.pdf

❖ **For communicating a learning goal**

- ✓ New material is an opportunity for all of us to stretch our abilities!
- ✓ Today, your brain will get stronger.
- ✓ I am hoping that you all do not know this already; I wouldn't like to waste your time!
- ✓ I really want us to stretch beyond our comfort zone on this!
- ✓ After you do this, I am going to ask everyone to share one mistake and what you learned, so we can all learn from it.
- ✓ I'd like everyone to share one thing that is really confusing, at this point, with a partner.
- ✓ The point of the lesson is learning; I want to know what parts are unclear so we can all meet the learning target.
- ✓ Today's target for learning is [X learning objective.] Tomorrow, we will continue our work and take a deeper dive by working on [Y learning objective.]
- ✓ I do not expect you to know this already. I am here to help you learn challenging material.
- ✓ This is very dense and challenging material. You may not understand all of it right away, but I want you to give it a first try.
- ✓ This is just the first draft-you'll have lots of chances to improve it.
- ✓ I want you to push yourselves to tackle this concept.
- ✓ You won't be graded for this – it's a risk-free zone.
- ✓ We are in the learning zone today. I expect you to make a lot of mistakes because mistakes are normal when we are learning new things.
- ✓ This is a very challenging task. I want you to try, even if you think you won't get it right, I am not looking for right answers; I am looking for risk-taking.
- ✓ We'll be firing a lot of neurons today while we learn, and may not make all the necessary connection to understand this material, and that's OK. We'll get there.

❖ **For communicating high expectations**

- ✓ I know that you all have the ability to learn this, so I have to set the bar high.
- ✓ This will be a challenging concept to learn, but all of us can reach the goal.
- ✓ If you begin to feel frustrated, be sure to communicate with me about your progress so I can provide support to you. I am confident you can learn this with the right support.
- ✓ I am going to push you all because I know that you can all achieve amazing work!
- ✓ Our classroom is a place for everyone to learn challenging material. I am here to help you to meet that goal.
- ✓ I expect you to make mistakes when you try hard things! This is challenging, but rewarding!
- ✓ This may be difficult right now, but as you learn more, it will become easier.
- ✓ When you master this learning, you can be proud of yourself, because this isn't easy.
- ✓ Here is my challenge for you. I know we can meet it. I want you to challenge yourself.
- ✓ I have seen you stretch and succeed in the past. Let's do it again.

Appendix Q: Goal Setting. Examples of Activities and Feedback

To learn English, you have to work hard and put in a lot of effort. In addition to this, you need to have SMART goals.

Watch the following video at: https://www.youtube.com/watch?v=U4IU-y9-J8Q&t=84s

Transcript in English

Video: How to write a SMART goal

Welcome back. So we've learned that it's important to keep working through your frustrations by using the right learning strategies. The more you work through your frustration, the more your brain grows, right?

But it can be difficult to work through that frustration without a clear direction. That's why it's important to make **SMART** goals. It's an acronym. It goes like this: **S**pecific, **M**easurable, **A**ctionable, **R**ealistic, **T**imely.

Because look, you can wish all you want and say: "One day I'm gonna go to the moon." And you can want that like your life depended on it. But a wish is not a goal.

An example of a moon plan that consists of smart goals would go something like this. In 20 years, I will have studied enough physics and chemistry, flown jet planes in the Air Force, worked out four times a week, and gotten a job as an astronaut for NASA. And this will enable me to fly a spacecraft to the moon and put my feet on it for science reasons.

Specific: Put your feet on the moon.

Measurable: Are your feet touching the surface of the moon?

Actionable: It is actionable, that is to say doable, to study physics and chemistry, enlist in the Air Force, and go to the gym.

Realistic: It's hard, but it's not impossible to become an astronaut.

Timely: Here's where more realism kicks in. You won't be able to go to the moon as an astronaut overnight. Twenty years seems a little more reasonable.

But let's take this back to a more sensible time scale and look at our friend, Thinky Pinky. "Hey, buddy!" TP here is interested in pull-ups and wants to be able to lift their entire mass with just the arms, this one. But pull-ups are hard. So let's take a look at Thinky Pinky's reflection journal:

Quote, "I want to be able to do two consecutive pull-ups by the end of the year by practising pull-ups at the gym three times per week." Why is this a smart goal?

S is for specific: TP wants to work on pull-ups. And they're not interested in biking or weight training. There's one skill that Thinky Pinky wants to work on, and that's pull-ups.

M is for measurable: What's the metric for TP's success? Two in a row. Two pull-ups, one right after the other. You've either done it or you haven't. Measurable.

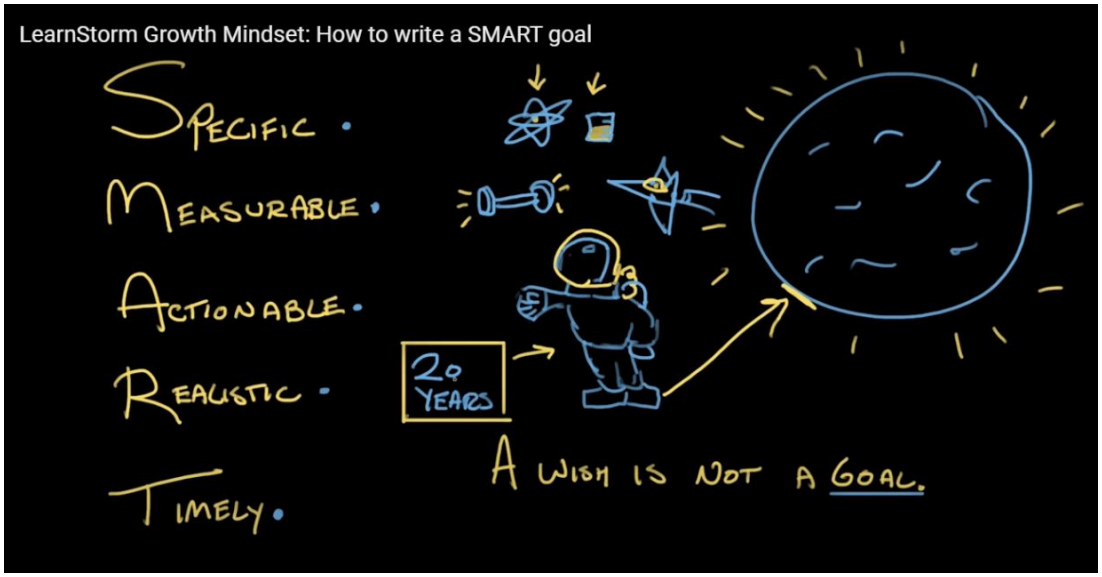
A is for actionable: Can it be broken down into individual tasks? Yeah. Go into the gym three times a week to practice feels very actionable indeed.

R is for realistic: TP's not training to lift a car. Just some pull-ups.

T is for timely: There's a time limit on this. Thinky Pinky wants to do this in a year's time.

Altogether, that's a smart goal you got there, TP. With the power of persistence, smart goals, and the right kind of help, you can do anything you set your mind to.

You can learn anything! Happy goal setting!



Activity: Write your SMART Goals for this English course

Specific	**Write down a specific challenging goal for this English course**
Measurable	**Write down how you will track your progress**.
Achievable	**Write down specific actions that will allow accomplishing this goal.** Make sure the goal is obtainable through these actions.
Realistic and Relevant	**Write down concrete actions that will help you to carry out the plan:** Where will you do it? (at school, at home, at the library) When will you do it? (write what specific days and times they will do it: after school, during weekends, on Tuesdays, on vacations) What concrete materials will you use? (English textbooks, English notebooks, online material, English songs, movies, poems, dictionaries, etc.) What strategies will you use? (Making connections, diagrams, making inferences, paying attention, making vocabulary webs, monitoring, evaluating, etc.)
Time-bound	**Write down when you expect to fulfil this goal** It has to be a specific date.

Goals Feedback Example

Name: Jessica

Specific: Improve my reading and listening. I want to raise my level of English.

Measurable:

1. Find tips to improve.
2. Read texts.
3. Listen to audios.
4. Make guides.
5. See my final progress.

Achievable: First I will start reading texts on pages like Cambridge and doing activities to see my initial level. To improve my listening, I will look for tips on the internet, I will pay more attention to the audios and also to the English classes. I want to process the information faster. And when all the classes are over, I will do the final evaluation. I hope to improve remarkably, because with effort I can achieve to whatever I want.

Realistic and Relevant: Where will I do these actions?

- In my house.

When will I do these activities?

- On Monday, Wednesday and Friday after English classes. Also an hour on Sundays.

What concrete materials will I use?

- English textbooks, online material, movies and dictionaries.

What strategies will I use?

- Make diagrams, pay attention to classes, texts and audios, make a small vocabulary with words that I don't understand, evaluate myself.

Time-bound: I hope to meet my goals on September 4, as classes end there and I will see my final result. I will try hard at this time to improve my English.

Teachers' feedback

Very well done!

I see that you have a clear goal (improve your general English level) and an excellent plan to improve ☺

I see that you set what specific days and for how long you will study, which is great ☺.

I would just suggest that you do activities to improve all the areas:

- Speaking and pronunciation
- Reading
- Listening
- Writing and punctuation
- Grammar
- Vocabulary

You can even be more precise, for instance:

"I will practice grammar Mondays and Wednesdays after the English lessons for 1 hour, and I will use the material available in MoodleX."

"I will find out the pronunciation of the words I don't know how to pronounce yet, and I will record myself every week to see my progress in pronunciation and fluency."

"I will write down all the words I learn in the English classes, YouTube videos, and movies".

"On Fridays, I will do again the listening activities that were hard for me to understand."

If you put in a lot of effort and practice, I am sure you will achieve your goals ☺.

Revision and evaluation of your SMART Goals

Name: _____

Activity: Revision and evaluation of your SMART Goals.

Have a look at the SMART Goals you set at the beginning of the course and answer the following questions:

1. Go to letters A (for achievable) and R (for Realistic and Relevant) and read the specific and concrete actions that would allow accomplishing your goals. Have you been doing all these activities? Which activities have you done? Which activities have you not done? Explain why.

2. Read your specific goal. Did you achieve it?

If the answer is no, write down how much more time you need to achieve it. Does this date coincide with the specific date that you wrote in letter T (for Time-bound)?

If the answer is yes, you can now search for a new specific goal. Write down another SMART Goal.

3. Have you done any extra activities for achieving your goal? (Apart from the ones you decided to do at the beginning of this course)

If yes, write them down

4. In general, are you satisfied with what you have done so far to complete your goals? Do you think you have put enough effort to achieve what you want? If you are not satisfied, what other things you believe that you should do to achieve your goals?

Revision and Evaluation of your SMART Goals (Feedback Example)

Name: Barb

Activity: Revision and evaluation of your SMART Goals.

Have a look at the SMART Goals you set at the beginning of the course and answer the following questions:

1. Go to letters A (for achievable) and R (for Realistic and Relevant) and read the specific and concrete actions that would allow accomplishing your goals. Have you been doing all these activities? Which activities have you done? Which activities have you not done? Explain why.

I've done all the activities that I'm proposed, but at my time. I'm read more in English, as write the new vocabulary, for example this activity of stick in my wall important things, it has server me above all for differentiate in past, present and future.

Other activity is watch movies and sitcom or series in English whit subtitles in this idiom, it has server so much all the moment the listening different accent as integrate new vocabulary and too practice my pronunciation, as well as I've seen videos of grammar, different in two words or more, and the way of the pronounce.

2. Read your specific goal. Did you achieve it?

If the answer is no, write down how much more time you need to achieve it. Does this date coincide with the specific date that you wrote in letter T (for Time-bound)?

If the answer is yes, you can now search for a new specific goal. Write down another SMART Goal.

So so, I achieved a great part of the SMART GOALS, for ex; before couldn't watch a movie complete in English without subtitles in Spanish, but now I'm can do this, as well as to get better in everything.

Maybe I took me longer dominate well this, but think and feels I achieving it, the safest is improve it and achieve it well before having another challenge, but at this SMART GOALS aggregate more challenges for achieved as; constantly look at videos of pronunciation as grammar, reading more and translate the words that I don't know.

3. Have you done any extra activities for achieving your goal? (Apart from the ones you decided to do at the beginning of this course) If yes, write them down

Yes, as said in first ask/answer, I'm watch videos of grammar, pronunciation, learn differentiate words that sound same or are writing same.

4. In general, are you satisfied with what you have done so far to complete your goals? Do you think you have put enough effort to achieve what you want? If you are not satisfied, what other things you believe that you should do to achieve your goals?

Teachers' feedback:

I'm think much this, feel good whit the outcome but I thinking that never we can't be completely satisfied about something if we still do not fully achieve it, however I feel that I am achieving it and it is nice as well as rewarding... this is amazing. (I feeling that everything years in which thought that nothing help me move on, It was just a belief, because I realized that I understood many things and each time all those years full of matter are being effective now.)

Dear Barb,

Thank you very much for reflecting on your learning process, activities and goals. It is important to evaluate, think and re-evaluate what we are doing.

You are a hard-working student! I can see all the effort are putting into improving your English. Congratulations!!! You are being an autonomous learner, and that is key to succeeding in the university ☺. So, keep up your fantastic work, and you will see the results sooner than later.

I am so happy to see that you can see that you are progressing ♡
It is important to value our effort and our hard work when you can see positive results. You have to be proud of yourself!!! Very well done! All your effort has been worth it.

Sometimes it is hard to get to a higher level. Whenever you feel that "you are stuck", try to learn new things. Evaluate if what you are studying is too easy for you. If that is the case, try to learn new words or practice listening/reading exercises at a higher level. If you challenge yourself and put in a lot of effort, you will improve your English level.

If you have questions, please write to me.
Best wishes,
Claudia

Appendix R: Goals Quotes

- “Setting goals is the first step in turning the invisible into the visible.” (Tony Robbins - American businessman, author and philanthropist)
- “If you want to be happy, set a goal that commands your thoughts, liberates your energy and inspires your hopes.” (Andrew Carnegie)
- “All who have accomplished great things have had a great aim, have fixed their gaze on a goal which was high, one which sometimes seemed impossible.” (Orison Swett Marden)
- “Our goals can only be reached through a vehicle of a plan, in which we must fervently believe, and upon which we must vigorously act. There is no other route to success.” (Pablo Picasso)
- “Success is the progressive realization of a worthy goal or ideal.” (Earl Nightingale)
- “By recording your dreams and goals on paper, you set in motion the process of becoming the person you most want to be. Put your future in good hands—your own.” (Mark Victor Hansen)
- “The trouble with not having a goal is that you can spend your life running up and down the field and never score.” (Bill Copeland)
- “One way to keep momentum going is to have constantly greater goals.” (Michael Korda)
- “All successful people have a goal. No one can get anywhere unless he knows where he wants to go and what he wants to be or do. ” (Norman Vincent Peale)
- “A goal properly set is halfway reached.” (Zig Ziglar)
- “I think goals should never be easy, they should force you to work, even if they are uncomfortable at the time.” (Michael Phelps)
- “You can do anything if you set goals. You just have to push yourself.” (RJ Mitte)
- “It’s important to set your own goals and work hard to achieve them.” (Yuichiro Miura)
- “You should set goals beyond your reach so you always have something to live for.” (Ted Turner)

Appendix S: Making Mistakes

In this session, you will learn about the importance of mistakes in language learning.

Let's start by having a look at the definition of the word "mistake".

Mistake: (noun)

An action or decision that is wrong or produces a result that is not correct or not intended.

Synonym: error, slip, inaccuracy.

Example: We all make **mistakes**.

Activity: Watch the following video and answer the questions

Video available at https://www.youtube.com/watch?v=EoWLgWCcpWo

Transcript of the Video

Chapter 2: Mojo bounces back

Mojo was walking down the hall when he came across a curious poster.

"Woo! A Robotics Competition"

"Well, now that I know how to grow my brain like a muscle, I'll be unstoppable!"

He worked furiously, and after a few hours of hard work, he realized building a robot would be harder than he thought, but he trudged onward, making mistakes, then working hard, and then making even more mistakes. Finally, a terrible truth dawned on him: he would never build a great robot

A little while later, Katy stopped by, "Wow, sweet robot", said Katy "But what's it doing in the trash?"

"It's garbage," said Mojo. "I kept making mistakes, so I gave up."

"Mistakes are no big deal," said Katy. "They can even make you smarter."

"Oh, so mistakes are good," said Mojo.

"It depends how you handle them," said Katie. "See, neuroscientists have studied what happens in people's brains when they make mistakes. Some people give up when they make mistakes. They think mistakes mean they just aren't good at something, so they shut down and stop trying. But when you stop trying, your brain gets lazy; it doesn't get the exercise it needs to grow. But other people focus on learning from mistakes: They love seeing what they did wrong so they can do it better next time, and that process of learning from mistakes makes your brain work extra hard to grow stronger."

Mojo took another look at his robot. Maybe all those mistakes weren't such a bad thing after all. Maybe every mistake was just a step along the way to building something great

But what do you think? Could Mojo learn from his mistakes? What about you? Now that is an interesting question indeed!

Question 1

Katie says that mistakes can make you smarter. It depends on how you handle them.

a) True
b) False

Question 2:

Mistakes mean that you are not good at something

a) True
b) False

Question 3

Neuroscientists discovered that when people who make mistakes give up and stop trying, their brains get lazy

a) True
b) False

Question 4

Neuroscientists discovered that when people learn from their mistakes, their brains work extra harder and grow stronger.

Making mistakes is key for language learning

Now, you will watch a video that explains that you can learn a second language by making mistakes. Video available at: https://www.youtube.com/watch?v=TMWcxzzehKg&t=3s

Transcript in English

Video: Why making mistakes is key for language learning?

Okay. So take a moment to think about this: How often do you get things right the first time? Ask any scientist or top chef, and they'll tell you that the mistakes they made often led to great discoveries and creative breakthroughs.

In short, and as strange as it may sound, we sometimes have to get things wrong to get things right. Think about when kids learn to speak. It takes ages, right? Babies spend a long time mimicking the sounds they hear other people making and first put together thousands of meaningless sentences like dog, fun, mummy, bum before they eventually start making sense.

In fact, making all those funny noises is an essential part of training our brains and vocal abilities to form real words. So you could say that a certain amount of trial and error is an advantage when learning anything, and especially when learning a new language. Any native English speaker, myself included, who tries to learn a language that has gendered nouns such as German or French will be familiar with getting things wrong now and then. Is it a *der*, *die*, or *das* baby? Is it *la* or *le chat*?

There are some rules of thumb for deciding which is which, but also a lot of exceptions to these rules. In the end, I just stopped worrying about it. There's no need to get tongue-tied as most people will automatically understand what you're saying from the context. Our brains are experts at filling in the blanks.

I find it useful to think of mistakes as signposts on the path to success, reminding me of when I took a wrong turn; then, the next time, I know which is the right way to go. And sometimes, our own language leads us up the wrong path, take false friends, for example. These are words from different languages that look and sound alike, but mean different things. Here's a tip: false friends are actually great opportunities for getting words to stick in your memory. The English word "gift", for example, means "poison" in German. And I'll never forget the look on my friend's face when instead of a birthday present I offered him "poison". Of course, I'll also never forget that a "gift" in German is "Geschenk", so you see: I learned something!

Question 5

Why making mistakes is key for language learning?

a) A certain amount of trial and error is an advantage when learning a new language.
b) Mistakes can remind you how to do things right the next time.
c) Sometimes we have to get things wrong to get things right.
d) All the answers are correct

Tips about learning from mistakes

Finally, the following video offers tips for learning from mistakes. Take notes, please!

Video available at https://www.youtube.com/watch?v=-wMrfUbQyRY

Transcript in English

Video: 6 tips about learning from mistakes.

Rob: When you're learning anything new, you're bound to make mistakes – and this is true when learning English. But there are different types of mistakes and how you deal with them depends on the type of error you've made. Listen to our top tips to help you out…

Some mistakes are just slips. In speaking, these might not matter so much, you can self-correct or just continue speaking in most situations. In writing, you should proofread your work and look out for the typical slips and mistakes you make and correct them.

However some slips might be more serious because they seem so normal to you that you forget that you've made them. You need to be careful with these.

To start with, you need to **recognise when you've made this type of mistake**. If you're unsure, get a teacher or a friend to listen or read your work and identify where you've gone wrong.

Other types of mistake are those that you make when you are trying out the new language you have learned. It's normal to get a few things wrong. In fact, the only way you can improve your language level overall is to make these mistakes again and again!

Just get help if you need it and don't let making mistakes stop you from learning English. This student agrees…

Student: **I think the best way to learn English is doing it without any fear for making mistakes!**

Rob: Next, **keep a record of your mistakes** – either by writing them in a book or making a recording of you speaking. You then have a list of errors to concentrate on. And later on, it's good to look back at this and see how you've improved.

If you're making lots of mistakes, don't panic - it means you are learning lots of new language! **Try to deal with correcting errors in a manageable way – bit by bit.** Set yourself achievable goals to improve your English step by step.

A final type of mistake is one you might make when **you are trying to say or write something, but you haven't learned the language to do so yet. Don't worry - these are great mistakes! They help you identify language you need to learn.** You can then use these gaps to plan your studies or to make questions to ask your teacher.

Just remember we all make mistakes - it's normal. But as long you learn from your mistakes or use them to improve your learning, you'll be fine. Good luck!

Question 6

According to the video, which are the six tips to learn from mistakes?

a) 1. Recognise a mistake and correct it / 2. Recognise a mistake and get help / 3. Don't be afraid of making mistakes / 4. Keep a record of your mistakes / 5. Improve one step at a time / 6. Use mistakes to identify learning

b) 1. Recognise a mistake and correct it / 2. Recognise a mistake and get help / 3. Don't be afraid of making mistakes / 4. Do not write down your mistakes / 5. Improve all your mistakes at the same time / 6. Use mistakes to identify learning

c) 1. Recognise a mistake and correct it / 2. Recognise a mistake and do not ask for help / 3. Please, never make mistakes / 4. Keep a record of your mistakes / 5. Improve one step at a time / 6. Use mistakes to identify learning

Correct Answers

Question 1: A

Mistakes can make you **smarter** as long as you know how to **handle** them!

Question 2: B

Mistakes mean that there is something you **do not understand well yet.** You need to **work harder** to get it right!

Question 3: A

This is right! You need to **make an effort** to **learn**.

Question 4: A

The **more effort** you put into an activity, the more you **learn**.

Question 5: D

Question 6: A

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Appendix T: Brain Malleability

Part 1: Vocabulary

Welcome to session 1!

In this session, you will learn about the malleability of your brain.

The following words will appear in a video you will watch later, so let's make sure you understand the meaning of them:

Actions (verbs)	Adjectives	Nouns
work	hard	choice
give up	smart	brain
keep trying	challenging	muscle
believe	strong	neuroscientists

Work

* The definition was taken from https://www.lexico.com/en/definition/work ;

Work (verb)
1. be engaged in physical or mental activity in order to achieve a result.

Example 1: The man **works** at the office

Example 2: The kid **is working** on his assignment

Question 1: What does “work” mean in Spanish? (as a verb)

a) Trabajar
b) Descansar

Give up

* The definition was taken from https://www.lexico.com/en/definition/give

Give up (phrasal verb of give)

1. cease making an effort; admit defeat.

Similar:

- admit defeat
- concede defeat
- stop trying
- give in
- surrender
- capitulate
- be beaten

Example: Don’t give up! You can do it!

Question 2: What does “give up” mean in Spanish?

a) Dar
b) Rendirse

Keep trying

*The definition was taken from https://dictionary.cambridge.org/dictionary/english/keep-on-doing-sth ;

Keep trying

keep on doing something (phrasal verb with keep verb)

to continue to do something, or to do something again and again

Example: **Keep trying**! I am sure you will do it!

Question 3: What does “keep trying” mean in Spanish?

a) Seguir intentándolo

b) Rendirse

Believe

*The definition was taken from https://dictionary.cambridge.org/dictionary/english/believe

Believe (verb)

to think that something is true, correct, or real.

Example: You have to **believe** in yourself to succeed.

Question 4: What does “believe” mean in Spanish?

a) Dudar
b) Creer

Hard

*The definition was taken from https://dictionary.cambridge.org/dictionary/english/hard

1 Hard (adjective) (DIFFICULT)

difficult to understand, do, experience, or deal with.

Example: I am dealing with a **hard** situation in my life.

2 Hard (adjective) (USING EFFORT)

needing or using a lot of physical or mental effort.

Example: You have to work **hard** to achieve your goals

Question 5: What does “hard” mean in the following sentence?

This exercise is really **hard**! I cannot do it easily.

a) Fácil
b) Difícil

Question 6: What does the word “hard” mean in the following sentence?

If you want to get the right answer, you have to work **hard**.

a) Difícil
b) Arduamente / intensamente

Smart

*The definition was taken from https://dictionary.cambridge.org/dictionary/english/smart

Smart (adjective)

intelligent, or able to think quickly or intelligently in difficult situations.

Example: My friend always has **smart** ideas.

Question 7: What does the word “smart” mean in Spanish?

a) Inteligente

b) Nescio

Challenging

*The definition was taken from https://dictionary.cambridge.org/dictionary/english/challenging

Challenging (adjective)

difficult, in a way that tests your ability or determination.

Example: I never take the easy way. I like **challenging** situations!

Question 8: What does “challenging” mean in Spanish?

a) Desafiante
b) Fácil

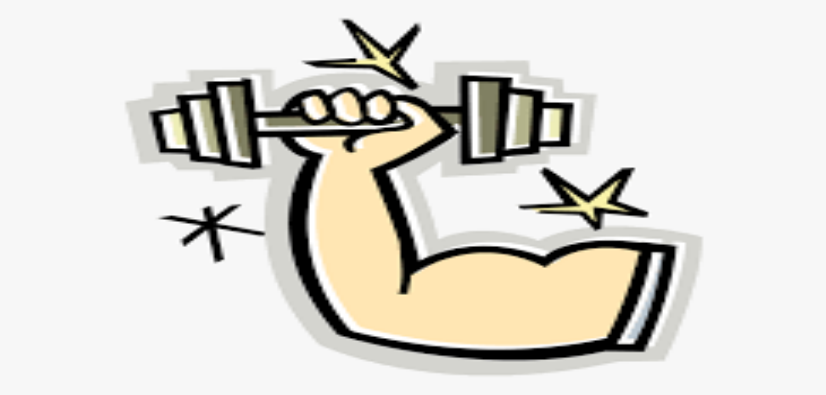
Strong

*The definition was taken from https://dictionary.cambridge.org/dictionary/english/strong

Strong (adjective) (NOT WEAK)

powerful; having or using great force or control.

Example: My best friend is very **strong**. He exercises every day.



Question 9: What does “strong” mean in Spanish?

a) Débil
b) Fuerte

Choice

*The definition was taken from https://dictionary.cambridge.org/dictionary/english/choice

Choice (noun)

an act or the possibility of choosing:

Similar: option

Example: I have so many **choices**! Which one should I follow?

Question 10: What does the word “choice” mean in Spanish?

a) Opción
b) Difícil

Brain

*The definition was taken from https://dictionary.cambridge.org/dictionary/english/brain

Brain (noun)

the organ inside the head that controls thought, memory, feelings, and activity.

Example: The **brain** is the most complex organ in the human body.

Question 11: What does the word “brain” mean in Spanish?

a) Cabeza
b) Cerebro

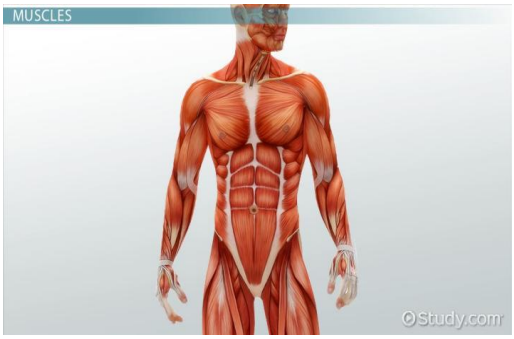
Muscle

*The definition was taken from https://dictionary.cambridge.org/dictionary/english/muscle

Muscle (noun) (BODY PART)

one of many tissues in the body that can tighten and relax to produce movement.

Example: You need to exercise to grow your **muscles.**



Question 12: What does the word “muscle” mean in Spanish?

a) Masa
b) Músculo

Malleable

This definition was taken from https://dictionary.cambridge.org/dictionary/english/malleable ;

Malleable (Adjective)

A malleable substance is easily changed into a new shape

Synonym: flexible

Example: The Human brain is **malleable**

Question 13: What does the word “malleable” mean in Spanish?

a) Rígido / Duro
b) Maleable / Flexible

Neuroscientist

*The definition was taken
from https://dictionary.cambridge.org/dictionary/english/neuroscientist

Neuroscientist (noun)

a scientist who studies the nervous system and the brain.

Example: The **neuroscientists** are studying a very complex case.

Question 14: What does the word “neuroscientist” mean in Spanish?

a) Médico General
b) Neurocientífico / Neurocientífica

Part 2: Video

Instructions:

Look and listen to the following video and then answer some questions.
https://www.youtube.com/watch?v=2zrtHt3bBmQ

Chapter 1: Mojo discovers a secret about his brain.

A secret that will change the way he looks at the world forever!

Our story begins with Mojo, a friendly monster who loved school, especially math.

Until one day, when something terrible happened.

The math problems got harder.

Nothing made sense anymore!

Mojo had a devastating thought.

He just wasn't smart enough for school.

It seemed the only reasonable thing to do, was pack his things and leave forever.

Just then, he heard his friend, Katie, laughing.

"Mojo, you can't just give up," she said.

"I have no choice, Katie!" said Mojo. "You're either born smart, or you're not."

"And I realized today that I'm not."

"Mojo, that's not how it works," said Katie.

"Anyone can be smart; you just have to work at it."

"Pssh, that's the most ridiculous thing I've ever heard," said Mojo.

"It's not ridiculous; it's science," said Katie. "Neuroscientists studied the brain for years and discovered an incredible secret: that your brain is like a muscle!

"When you try challenging things, like those hard math problems, you're giving your brain the exercise it needs to get stronger, which makes you smarter!"

"Oh! Is that really true?" said Mojo.

"Of course," said Katie.

"It's like how when you were a baby: you didn't know how to talk."

"But you kept trying, exercising your brain, until one day, you could!"

Mojo couldn't believe what he was hearing.

If your brain was really like a muscle, did that mean anyone could become smarter? Even him?

He turned to ask Katie, but just then, she had to be off to her next class.

But maybe you can answer Mojo's question. What do you think? Can Mojo become smarter? What about you? Hmm, now that's an interesting question indeed!

Question 15: When Mojo believed that he was not smart enough for school, Katie told him to give up.

a) True
b) False

Question 16: Katie told Mojo that anyone could be smart if you work for it.

a) True
b) False

Question 17: Katie explained that neuroscientists discovered that the brain is like a muscle

a) False
b) True

Question 18: Katie explained that when you try easy things, you are giving your brain exercises to get stronger

a) False
b) True

Question 19: Mojo cannot become smarter if he keeps trying and exercising.

a) True
b) False

Question 20: Taking into account this video: You cannot learn English if you work hard because the brain cannot change.

a) True
b) False

Answers

Question 1: b

Question 2: b

Question 3: b

Question 4: a

Question 5: b

Question 6: b

Question 7: b

Question 8: b

Question 9: b

Question 10: b

Question 11: b

Question 12: b

Question 13: b

Question 14: a

Question 15: Correct answer: False

Katie told him he could not give up

Question 16: Correct answer: True

Question 17: Correct answer: True

Question 18: Correct answer: False

Katie explained that when you try challenging things, you are giving your brain exercises to get stronger easy is the opposite of challenging

Question 19: Correct answer: False

Mojo can become smarter if he keeps trying and exercising.

Question 20: Correct answer: False

You can learn English if you work hard because the brain is like a muscle that gets stronger when you try challenging things.

Question 15: Correct answer: False

Katie told him he **could not give up**

Question 16: Correct answer: True

Question 17: Correct answer: True

Question 18: Correct answer: False

Katie explained that when you try **challenging** things, you are giving your brain exercises to get stronger **easy** is the opposite of **challenging**

Question 19: Correct answer: False

Mojo **can** become smarter if he keeps trying and exercising.

Question 20: Correct answer: False

You **can** learn English if you **work hard** because the brain is like a muscle that gets stronger when you try **challenging things.**

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Appendix U: Reading Strategy 1. Predictions

Making predictions is essential for the following reasons:

- ✓ It helps to stimulate your imagination, which is an important part of reading.
- ✓ It helps to stimulate your thinking skills, which is important for engagement.
- ✓ It helps to have a purpose in reading (check whether your predictions are right or wrong).
- ✓ It helps you monitor and think about what you are reading and be critical about what you are reading.
- ✓ It helps you with focus, connect what you are reading to what you learned in the past, think ahead and anticipate what comes next.
- ✓ Remember: Good readers make predictions! They make, monitor, change predictions if necessary, and in the end, they confirm their predictions.

Make predictions

- Before Reading:
- ✓ Look at the title, pictures, graphs, etc.

- While Reading:
- ✓ Check your previous predictions
- ✓ Make new predictions (Taking into account the information you are reading)

Example

Today we will read a text called “My last holiday”

Activity: Write down 3 predictions

Example of questions to make predictions

- What do you think the text will be about?
- Do you think it was a good or a bad experience?
- Do you think this happened recently or a long time ago?
- Where do you think this holiday took place? Continent- Country- City
- As you read, check your predictions and create new ones if necessary.

Appendix V: Do Not Be Afraid to Ask Questions!

Introduction

In this session, you will learn about the importance of asking questions when you do not understand something.

Let's start by having a look at the definition of the word "yet".

Yet: (adverb)

Until the present time.

Synonym: so far, still, up to now

Example:

Human: Are you ready? Catch the frisbee!

Dog: No, wait! I am not ready **yet**!

Mojo: Episode 3

Watch the video: Mojo Episode 3 and then answer some questions about it.

Video available at: https://www.youtube.com/watch?reload=9&v=OFKVoCuwl2s

Chapter three: Katy discovers the incredible power of YET

Our story begins with Katie, a friendly monster, who loved being the smartest one in class. Until one day, when something unsettling happened. It was Katie's favourite time of the day: science class. She was always the best at science, but today something was different. Everyone was having a great time working on a fun project, but Katy just didn't get it. She started to ask for help, but then she had a frightening thought: if she asked for help, everyone would see she really wasn't so smart after all. She decided to keep quiet and pretend everything was okay.

A little while later, Katy was sitting at lunch feeling glum when Mojo stopped by

"Katie, you're a genius," said Mojo

"Um, what?" said Katie

"I was working on this project today," said Mojo, "and I got stuck."

"Normally, I would just give up and start throwing paper aeroplanes, but then I remembered what you said about how your brain is like a muscle, and I thought, hey, it's not like I can't do this I just can't do it YET."

"So I turn to Bruce, and I say, "Hey Bruce, I don't get this yet", and he's all like "No problema Mojo, I'll help you figure it out." "So we worked on it together, and now we have the sweetest volcano you've ever seen."

"That's great, Mojo," said Katie, "but weren't you embarrassed to ask for help?"

"No way! Why would I be embarrassed when I could be learning something new?"

Well, Katie couldn't believe it. She'd been teaching Mojo all about the brain, but maybe it was time she learned a lesson from him.

What do you think? Can Katie learn something from Mojo? Now, that's an interesting question indeed.

- Question 1:

Katie likes to be the smartest monster in the class

a) True
b) False

- Question 2:

When Katie did not understand something in the science class, she did not want to ask questions because she thought the other monsters would believe she was not smart.

a) True
b) False

- Question 3:

In the science class: Katie did not ask questions and kept silent, and in this way, she learned how to solve the problem.

a) False
b) True

- Question 4:

When Mojo was stuck (he could not solve his problem):

He remembered that Katie had told him that the brain could not change and grow, so he just gave up.

Remember: give up: stop trying

a) True
b) False

- Question 5:

Mojo understood that he could not do it YET, so he asked for help and found a solution.

Yet (adverb) 1. up until the present or a specified or implied time; by now or then. In Spanish means “todavía.”

a) True
b) False

- Question 6:

Katie learned that she does not have to feel embarrassed to ask for help because she can learn something new.

Embarrassed (adjective): feeling ashamed or shy. In Spanish "avergonzado"

a) True
b) False

- Question 7:

If I do not understand something in the English class, I have to ...

a) be in silence because if I ask questions, my classmates will think I am dumb.
b) feel embarrassed because I am not smart
c) ask for help to know the right answer and improve my English.
d) keep in silence (do not ask questions)

Correct Answers:

Question 1: True

Question 2: True

Perfect! Katie thought that only dumb individuals ask questions! But this is wrong! You have to ask questions to understand and become smarter.

Question 3: False

Well done!

Katie **kept silent**, but she **did not learn** what to do.

You have to **ask questions** if you do not understand something in class!

Question 4: False

Excellent! Katie had told him that the **brain grows with exercise**, so he **asked** a friend for **help.**

Question 5: True

Question 6: True

Question 7: C

Appendix W: Growth Mindset Framing Tool

Taken from: https://s3-us-west-1.amazonaws.com/mindset-net-site/FileCenter/MM_Feedback-and-Framing-Tool.pdf

❖ **When they are lacking specific skills needed for improvement.**

- ✓ Let me add new information to help you solve this.
- ✓ Here are some strategies to figure this out.
- ✓ Describe your process for completing this task.
- ✓ Let's practice this so you can move it from our short-term to our long-term memory.
- ✓ Give it a try – we can always fix mistakes once I see where you are getting held up.
- ✓ What parts were difficult for you? Let's look at them.
- ✓ Let's ask [another student] for advice – they may be able to explain it in a new way, suggest some ideas, or recommend some strategies.
- ✓ Let's write a plan for practicing and learning.
- ✓ If you make [these specific] changes, we can reassess your score. Let's discuss a plan for you.

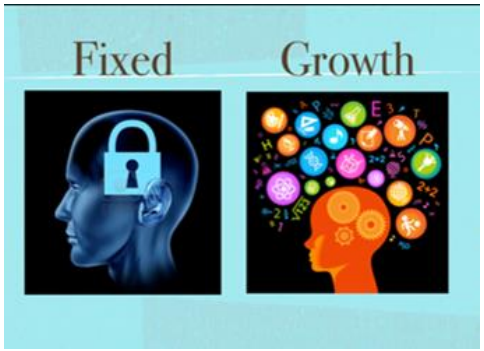
Appendix X: Language Learning Beliefs

Language learning mindsets: Definition

Individuals can have different mindsets for different domains (Dweck et al., 1995). People might possess different mindsets for diverse aspects of their lives because mindsets can function separately from one another (Ryan & Mercer 2012).

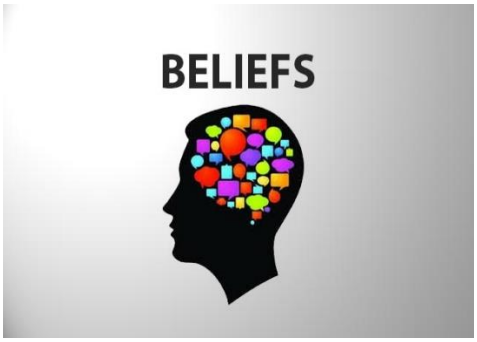
Mercer & Ryan (2010) and Ryan & Mercer (2011, 2012) have described fixed and growth language learning mindsets:

- Fixed language mindsets believe that outstanding language learning is possible when people have a natural talent or ability which cannot be changed.
- Growth language mindsets think that the abilities for language learning can be developed through effort, practice and hard work.



Language learning beliefs

Your language learning beliefs might affect your motivation to learn English and your achievement. In this lesson, you will be able to check whether your beliefs related to general language beliefs and language learning ability (also known as language aptitude) are correct or not.



General language beliefs

General language beliefs are related to the discussions about the existence of linguistic or verbal intelligence. Some investigators claim that exists a fixed linguistic intelligence which establishes ability in language tasks (Lou & Noels, 2020).

*Belief: something regarded as true
*Fixed: permanent, inflexible

Language learning aptitude beliefs

The second language learning beliefs are connected to the debate related to whether the aptitude for learning a new language is fixed (genetic-based) or malleable through effort and training (Lou & Noels, 2017, 2020).
*Aptitude: quickness at learning, competence

Activity

Your language learning beliefs influence the type of mindset you have, so now you will take a quiz that will help you change your incorrect beliefs.

Question 1

We are born with a certain amount of verbal/language intelligence which cannot change.

A) True
B) False

Question 2

We are born with a certain ability to learn a new language, and we cannot change this.

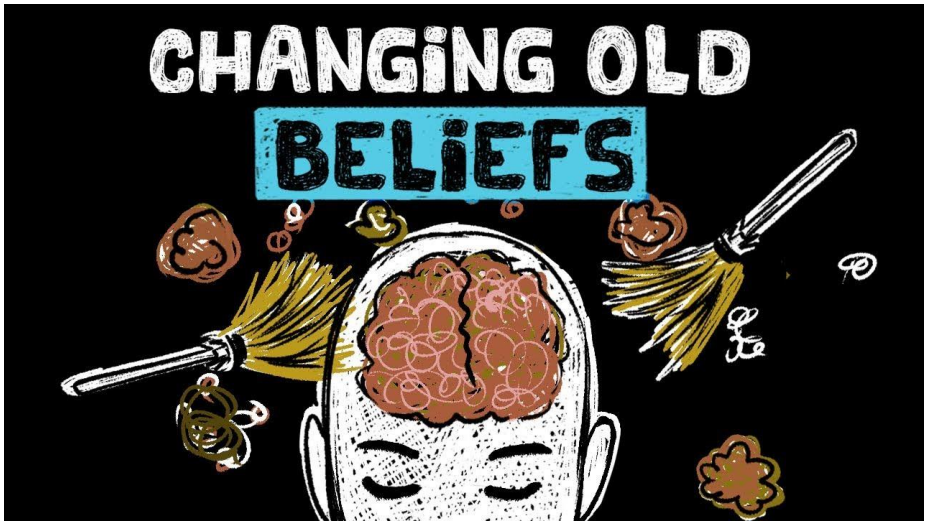
a) True
b) False

Question 3:

Successful language learning depends on many factors, among which language aptitude might be one of them

a) True
b) False

Conclusion



- It is important to be aware of your language learning beliefs.
- If you possess incorrect beliefs about language learning, you have to change them.
- A growth language learning mindset can increase your motivation and achievement.
- A growth language learning mindset can help you to achieve your goals
- A growth language learning mindset can help to learn English successfully.

Answers

Question 1: Correct answer: False

Our verbal/language intelligence can be developed throughout our lives.

Question 2: Correct answer: False

Language learning ability can change and increase with effort, hard work and practice

Question 3: Correct answer: True

Other factors can affect second language learning, for example, individuals' personality, learning styles, willingness to communicate, anxiety, self-esteem, motivation and beliefs (Lightbown & Spada, 2011)

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Appendix Y: Age-Sensitivity Beliefs

What are age-sensitivity beliefs?

Age-sensitivity beliefs are related to what is the best age to learn a new language. What do you think?

Answer the following question:

Question 1:

Children can learn English more quickly and easily than adults. If you really want to learn English, you need to start taking lessons as a child because adults cannot learn English successfully.

a) True
b) False

Examples

Celebrities who learnt English as a second language

(Modified from: https://www.english.com/blog/clebrities-who-learnt-english/)

Celebrities are just like everyone else, aren't they? They're just people, after all… OK, so maybe the rest of us don't live in impressive houses in glamorous cities or drive supercars, but some of us do have at least one thing in common with certain celebrities – we learned English as a second language.

It's important to have role models who can inspire us and illustrate that learning English can be the first step to a new life and a highly successful career. Read on to find out more about celebrities who learned English as a second language.

Sofía Vergara

You may know Sofía as she is a famous actress. She grew up in Colombia with five brothers and sisters, and her native tongue is Spanish. She learned English from an early age at a bilingual school. Speaking in English helped her to become a star not only in her home country but also a superstar in the United States.

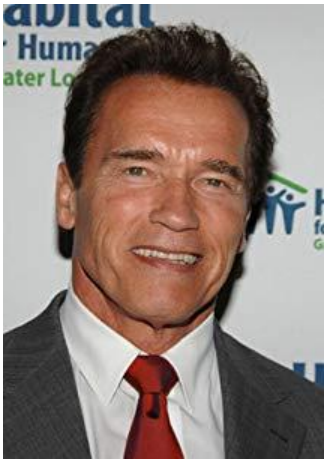
Question 2

How old was Sofía Vergara when she started to learn English?

a) She started to learn English in her adulthood.
b) She started to learn English from an early age
c) She started to learn English when she was a famous actress.

Arnold Schwarzenegger

Arnold began weight training when he was 15 years old and won the title of Mr Universe at age 19. When he was 21, he moved to America with barely any English and started taking English classes in between weightlifting sessions. Arnold really wanted a career in Hollywood, and after the 1982 blockbuster hit, Conan the Barbarian, his career took off. Between 2003 and 2011, Arnold was governor of California.



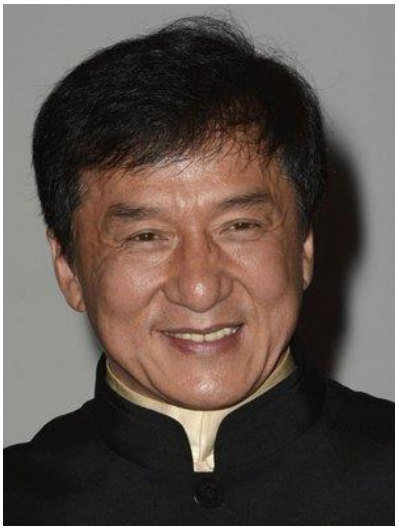
Question 3

How old was Arnold Schwarzenegger when he started to learn English?

a) He was 15
b) He was 19
c) He was 21

Jackie Chan

Older fans may remember watching Jackie's earlier movies, where his voice was dubbed over in English. He starred in many kung fu movies and taught himself English by listening to songs with English lyrics. You may not know that he refuses to play villains in his movies and does all his stunts.



Question 4

Jackie Chan learned English when he was a kid.

a) True
b) False

Penélope Cruz

Born and raised in Madrid, Penelope's first language is Spanish. She started to learn English later in her childhood but admits to knowing little English when she first moved to the US when she was 20 years old. She began to learn more of the language after she signed her first movie contract. In 2009, she became the first Spanish actress to win an Oscar for her English-speaking supporting role in the movie Vicky Cristina Barcelona. Here she discusses how she learned English:

Video available at: https://www.youtube.com/watch?v=GGXx0cRETP4

Transcript in English

Video: Penelope Cruz

Penelope: I was working in Spain, in France and in Italy. I put myself on tape and did a couple of scenes, and that's how I got my first American movie. And Stephen Frears came to Madrid after he saw the tapes, came to this restaurant, where you and I are right now, and then he realised that all the English I spoke was the lines that I said on the tapes for the character.

Interviewer: That's all you knew

Penelope: And "how are you?" and "thank you" and "nice to meet you", and that was all. But he was very kind, and he still gave me the part. I spoke very little English only… I was obsessed with working on the dialogues for the character, but then, when we had read-throughs or conversations about the characters or rehearsals with the other actors, I had no clue what they were talking about, and that made me furious because I don´t like missing, you know, information and more when I am working. So, I remember I used to go into the bathroom and hide and cry and release all that frustration.

Question 5

How old was Penelope Cruz when she learned English successfully?

a) She was an adult
b) She was a little girl
c) She was a teenager

Conclusion

People can learn a new language at any age

You can learn English at any age!

Answers:

Question 1: Correct answer: False

You can learn English at any age! Kids, teenagers and adults are all able to learn a new language. Some studies demonstrate that in the first phases of second language learning, older individuals can be more competent than younger people (Lightbown & Spada, 2011). In addition, other investigations suggest that different components of language aptitude are developed at different ages. For example, young children could develop memory components, whereas older learners were better at language analysis (Harley & Hart, 1997).

Question 2: Correct answer: B

Question 3: Correct answer: C

Question 4: Correct answer: B

Question 5: Correct answer: A

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Appendix Z: Beliefs About Language Learning

Do you believe that to learn English you need to travel abroad?

Do you believe that it is possible to learn English in a classroom?

In this lesson, you will solve these questions. Let's see what you think!

Question 1: The only manner of learning English is by travelling to English speaking countries such as the United Kingdom and the United States.

a) False
b) True

Question 2: I can learn English at my school in the English lessons

a) False
b) True

Question 3: Honestly, it is not possible to learn English in the classroom. People need to travel to English speaking countries, such as the United Kingdom, Australia or the United States to learn English properly.

a) False
b) True

As you can see, you can learn English in your English lessons at school.

To learn English, you have to work hard and put a lot of effort.

Answers

Correct answer: Question 1: False

You can learn English by travelling; however, it is not the **only** manner.

Correct answer: Question 2: True

It is possible to learn English in the classrooms.

Correct answer: Question 3: False

You can learn English in a classroom! Even though going abroad is an excellent way to put into practice your English, it is not the only way to improve. There are plenty of opportunities to enhance your abilities by studying in your classroom settings through conscious learning situations.

Appendix AA: Templates to Reflect on Language Learning Domains and Feedback Examples

Templates to reflect on language mindsets

Activity: Let's reflect on your effort and progress and evaluate your language mindsets.

1. In your personal opinion, can you improve these domains?

Domain	**Yes, I can**	**No, I can't**	**I am not sure**
English language learning in general			
L2 speaking			
L2 pronunciation			
L2 writing			
L2 punctuation			
L2 reading comprehension			
L2 vocabulary learning			
L2 listening comprehension			
L2 grammar learning			

2. How much progress have you made in each of these domains? (Since we started the course)

Domain	**A lot of progress**	**Some progress**	**A little progress**	**No progress**
English language learning in general				
L2 speaking				
L2 pronunciation				
L2 writing				
L2 punctuation				
L2 reading comprehension				
L2 vocabulary learning				
L2 listening comprehension				
L2 grammar learning				

3. Think about how much effort you have put to improve your abilities:

Domain	A lot of effort	Some effort	A little effort	No effort
English language learning in general				
L2 speaking				
L2 pronunciation				
L2 writing				
L2 punctuation				
L2 reading comprehension				
L2 vocabulary learning				
L2 listening comprehension				
L2 grammar learning				

4. Have you used any strategy to improve these domains? If yes, write down the strategies you have used

Abilities	Yes	No
English language learning in general		
L2 speaking		
L2 pronunciation		
L2 writing		
L2 punctuation		
L2 reading comprehension		
L2 vocabulary learning		
L2 listening comprehension		
L2 grammar learning		

Reflect on your previous answers:

5. Is there any relationship between the areas you have improved and the effort you have put?

6. Is there any relationship between the areas you have not improved and the effort you have put?

7. Is there any relationship between your improvement, effort and the use of strategies?

8. What can you do to get better results in the areas you have not been able to improve?

Template to reflect on language mindsets related to L2 speaking and pronunciation.

Activity: Let's reflect on your language mindsets related to L2 speaking and pronunciation.

1. Rate how hard or easy L2 speaking and pronunciation are for you:

Domain	Very difficult	Difficult	Neither easy nor hard	Easy	Very easy
L2 speaking					
L2 pronunciation					

2. Do you think it is possible to improve your L2 speaking and pronunciation?

Domain	Yes, I can	No, I can't	I am not sure
L2 speaking			
L2 pronunciation			

3. What factors do you think that contribute to L2 speaking? Tick all the factors you consider important.

Factor	Important	Not important	I am not sure
To have a special ability for L2 speaking			
To put a lot of effort			
To work hard			
To have a good memory			
To practice			
To have access to proper materials			
To study hard			

To receive teachers' feedback			
To travel to an English-speaking country			
To know proper strategies to improve your speaking			

3. What factors do you think that contribute to L2 pronunciation? Tick all the factors you consider important.

Factor	**Important**	**Not important**	**I am not sure**
To have a special ability for L2 pronunciation			
To put a lot of effort			
To work hard			
To have a good memory			
To practice			
To have access to proper materials			
To study hard			
To receive teachers' feedback			
To travel to an English-speaking country			
To know proper strategies for pronunciation			

4. Think about how much effort you have put to improve your L2 speaking and pronunciation.

Domain	A lot of effort	Some effort	A little effort	No effort
L2 speaking				
L2 pronunciation				

5. Have you used any strategy to improve your reading L2 speaking and pronunciation? If yes, write down the strategies you have used.

Domain	Yes	No
L2 speaking		
L2 pronunciation		

6. Reflect on your previous answers and write down how you can improve your L2 speaking and pronunciation.

Feedback sample for language mindsets 1

Name: María

Activity: Let's reflect on your effort and progress and evaluate your language mindsets.

1. In your personal opinion, can you improve these domains?

Domain	**Yes, I can**	**No, I can't**	**I am not sure**
English language learning in general	**X**		
L2 speaking	**X**		
L2 pronunciation	**X**		
L2 writing	**X**		
L2 punctuation	**X**		
L2 reading comprehension	**X**		
L2 vocabulary learning	**X**		
L2 listening comprehension	**X**		
L2 grammar learning	**X**		

2. How much progress have you made in each of these domains? (Since we started the course)

Domain	**A lot of progress**	**Some progress**	**A little progress**	**No progress**
English language learning in general	**X**			
L2 speaking		**X**		
L2 pronunciation	**X**			
L2 writing		**X**		
L2 punctuation			**X**	
L2 reading comprehension	**X**			
L2 vocabulary learning	**X**			
L2 listening comprehension	**X**			
L2 grammar learning		**X**		

3. Think about how much effort you have put to improve your abilities:

Domain	A lot of effort	Some effort	A little effort	No effort
English language learning in general	**X**			
L2 speaking		**X**		
L2 pronunciation	**X**			
L2 writing	**X**			
L2 punctuation			**X**	
L2 reading comprehension	**X**			
L2 vocabulary learning	**X**			
L2 listening comprehension	**X**			
L2 grammar learning		**X**		

4. Have you used any strategy to improve these domains? If yes, write down the strategies you have used

Abilities	Yes	No
English language learning in general	• See in English movies, news, TV shows, etc. • Take notes about the new vocabulary. • Sometimes record me, saying a sentence or a paragraph. • Listen music and conversations. • I've read texts and short stories.	

	• I research the words that I don't understand.	
L2 speaking	.Sometimes, record me sepeaking about an specific topic.	
L2 pronunciation	Sometimes record me, practice the correct pronunciation of the words. Sometimes write the words correctly, and the same time I write how sound (pronuntiation).	
L2 writing	During the week, I try to write little paragraphs or letters, about an specific topic.	
L2 punctuation		**X**
L2 reading comprehension	Read stories, news, paragraphs about different subjects.	
L2 vocabulary learning	I've made a list, with the words that I didn't understand. (Keeping a vocabulary notebook).	

L2 listening comprehension	.Every day I try to listen music, videos or conversations in English. . I use the strategie of Linking sounds and images.	
L2 grammar learning	.I revise and practice the grammar, using the online material. .I take notes of the rules that are more difficults for me, and after I read it, to try memorize them.	

Reflect on your previous answers:

5. Is there any relationship between the areas you have improved and the effort you have put?

Yes, I think that my effort in areas like comprehension, pronunciation, writing or vocabulary learning, have improved because I put more attention in them.

6. Is there any relationship between the areas you have not improved and the effort you have put?

Yes absolutley, if I put more effort and attention in areas like punctuation, speaking or grammar learning, in this moment I'll have better results.

7. Is there any relationship between your improvement, effort and the use of strategies?

Yes, when I use the strategies every day , and put my best effort, I get it good results, the results that I want.

When I don't practice with the strategies every day, don't pay enough attention to revise and practice the new things, the results aren't good.

8. What can you do to get better results in the areas you have not been able to improve?

I think that I should focus my attention, in the aspects that are more difficults for me, and most important, organized much better my time, for fulfil practice all the exercise and strategies, and then

Dear María,

Thank you very much for this ☺. I am amazed to see all the effort and progress you have made so far! Congratulations! I see that you have not been able to practice punctuation, so I will look for a good document with this information, and I will send it to you.

Feedback sample for language mindsets 2

Alicia

Activity: Let's reflect on your effort and progress and evaluate your language mindsets.

1. In your personal opinion, can you improve these domains?

Domain	**Yes, I can**	**No, I can't**	**I am not sure**
English language learning in general	X		
L2 speaking		X	
L2 pronunciation			X
L2 writing	X		
L2 punctuation	X		
L2 reading comprehension	X		
L2 vocabulary learning			X
L2 listening comprehension			X
L2 grammar learning			x

2. How much progress have you made in each of these domains? (Since we started the course)

Domain	**A lot of progress**	**Some progress**	**A little progress**	**No progress**
English language learning in general	X			
L2 speaking			X	
L2 pronunciation		X		
L2 writing	X			
L2 punctuation	X			
L2 reading comprehension		X		
L2 vocabulary learning			X	
L2 listening comprehension		X		
L2 grammar learning		X		

3. Think about how much effort you have put to improve your abilities:

Domain	A lot of effort	Some effort	A little effort	No effort
English language learning in general	X			
L2 speaking			X	
L2 pronunciation	X			
L2 writing	X			
L2 punctuation			X	
L2 reading comprehension	X			
L2 vocabulary learning		X		
L2 listening comprehension	X			
L2 grammar learning			X	

4. Have you used any strategy to improve these domains? If yes, write down the strategies you have used

Abilities	Yes	No
English language learning in general	X	
L2 speaking		X
L2 pronunciation	X	
L2 writing		X
L2 punctuation		X
L2 reading comprehension	X	
L2 vocabulary learning	X	
L2 listening comprehension	X	
L2 grammar learning		X

Reflect on your previous answers:

5. Is there any relationship between the areas you have improved and the effort you have put?

Yes, there any relationship between the have improved and the effort because the more we want to learn something we will look for more ways to learn it and for this we need "effort"

6. Is there any relationship between the areas you have not improved and the effort you have put?

Yes, because if there is not effort there will be no improvement but in some cases people make an effort without having results

7. Is there any relationship between your improvement, effort and the use of strategies?

Yes, because by using strategies it becomes easier and with the effort, the improvement will be more continuous

8. What can you do to get better results in the areas you have not been able to improve?

The area that I have not been able to improve is "speaking" I could ask my father if he can speak to me only in English during 30 minutes and be able to improve

Dear Alicia,

Thank you very much for sending me this ☺. Please be sure that you can improve all your language domains (including speaking, pronunciation, vocabulary, listening comprehension and grammar). Remember that to improve each of these domains, you can use strategies, and also, the most effort you put in, the best results you will get. For example, as you could notice, you cannot improve your speaking or pronunciation if you have not practised these domains. Talking to your dad in English every day is a nice way to start. You can also record your voice and practice the pronunciation of words that are hard for you to pronounce.

Feedback sample for language mindsets related to reading comprehension and vocabulary learning.

Gabriel

Activity: Let's reflect on your language mindsets related to reading comprehension and vocabulary learning.

1. Rate how hard or easy reading comprehension and vocabulary learning are for you:

Domain	Very difficult	Difficult	Neither easy nor hard	Easy	Very easy
L2 reading comprehension		X			
L2 vocabulary learning	X				

2. Do you think it is possible to improve your reading comprehension and vocabulary?

Domain	Yes, I can	No, I can't	I am not sure
L2 reading comprehension	X		
L2 vocabulary learning	X		

3. What factors do you think that contribute to L2 reading comprehension? Tick all the factors you consider important.

Factor	Important	Not important	I am not sure
To have a special ability for L2 reading comprehension		X	
To put a lot of effort	X		
To work hard	X		
To have a good memory	X		
To practice	X		
To have access to proper materials	X		

To study hard	X		
To receive teachers' feedback	X		
To travel to an English-speaking country		X	
To know proper strategies for improving your reading skills	X		

3. What factors do you think that contribute to L2 vocabulary learning? Tick all the factors you consider important.

Factor	**Important**	**Not important**	**I am not sure**
To have a special ability for L2 vocabulary learning		X	
To put a lot of effort	X		
To work hard	X		
To have a good memory	X		
To practice	X		
To have access to proper materials	X		
To study hard	X		
To receive teachers' feedback	X		
To travel to an English-speaking country		X	
To know proper strategies for vocabulary learning	X		

4. Think about how much effort you have put to improve your reading comprehension and vocabulary

Domain	A lot of effort	Some effort	A little effort	No effort
L2 reading comprehension		X		
L2 vocabulary learning		X		

5. Have you used any strategy to improve your reading comprehension and vocabulary? If yes, write down the strategies you have used.

Domain	Yes	No
L2 reading comprehension	X The scanning, i search only the detail i want to look for	
L2 vocabulary learning	X Look up the meaning in the dictionary Make a word of meanings and then try to learn them	

6. Reflect on your previous answers and write down how you can improve your reading comprehension and vocabulary.

I can improve my reading comprehension and vocabulary by putting more effort and trying to use new strategies.

Dear Gabriel,

Thank you so much for reflecting on your reading comprehension and vocabulary learning. You definitely have a growth mindset for these two domains ✨.
I think that the more vocabulary you know in English, the easiest it is to comprehend the reading texts. Also, when you are answering a question, try to identify what type of question you have to answer. Is it a general question? Is it a specific question? Can you find the information in the text, or do you have to infer the answer?

Keep up your hard work!

Best wishes,

Claudia

Appendix BB: Feedback Examples

Feedback example 1

Emma

Activity: Writing

Instructions:

- Write about your last holidays.
- Write between 100 and 150 words
- Remember:
- ❖ Steps for writing
- ❖ The importance of adjectives
- ❖ Use proper conjunctions
- ❖ Deadline: Monday 27th of July

My family and I went to Temuco last March, and in there we stayed for one week.

First we had to take a bus to Santiago and then we took a plane to Temuco, it was a very long trip and everyone was exhausted, so the first day we went to our cottage and we slept.

While we were there we rented different types of cottages in the surroundings of Pucón. The food was expensive but very delicious; I'll never be able to forget it. In the restaurants we met a lot of nice people and we also realized that during that time a lot of tourists were travelling too.

I remember that one day while we were hiking it suddenly began to rain, so we went back to our cottage. My dad and I were bored so we went to "explore" the forest that was a couple of minutes away from where we were staying, it was very pretty and I was amazed by the views inside the forest until my dad realized that we were lost, At the end we were able to get back to our cottage after a long walk. It was quite the experience.

Feedback:

Excellent! Very well written ☺

I would just suggest that you should pay attention to punctuation and think of the organization of paragraphs. For example, we usually add a comma (,) before a linking word (e.g. for instance, and, but).

You wrote four paragraphs, and I believe this can perfectly be one paragraph. Your topic sentence would be the first line, and your supporting sentences would be the other three

paragraphs. Your concluding sentence would be the last sentence. Have a look at writing strategy 2

Feedback example 2

Activity: Writing

Instructions:

- Write about your last holidays.
- Write between 100 and 150 words
- Remember:
  - ❖ Steps for writing
  - ❖ The importance of adjectives
  - ❖ Use proper conjunctions
  - ❖ Deadline: Monday 27th of July

Almost all my summer vacations are the same, but I don´t get bored. In fact, I like them a lot since I spend time with those I love and appreciate the most. During December and January, I was meeting with my friends, we went out to the shopping malls, we went to the beach and made a lot of pajamas party. Then at the end of January, my uncle and aunt who live far arrived, and we always go out with them. Also my grandparents have a summer house that we go every year and this these vacations were not the exception, every day we went to the beach; and at night, we did different things. I hope this summer vacations came soon and enjoy as it should.

Feedback:

Very well done ☺. Very well written! Almost no mistakes.

Be careful with punctuation and remember that “this” is for singular nouns and “these” is for plural nouns.

Also, next time, you can try to use different conjunctions of contrasts. Remember that it is good to use different words and expressions to practice and remember them.

For example, this sentence, “Almost all my summer vacations are the same, but I don´t get bored”, can be written as follows:

Even though/ Although all my summer vacations are the same, I don’t get bored.

Feedback example 3

Activity: Film Review

Follow the steps to write your own film review.

1. Think of a film you have watched.

2. Consider the following questions:

1. What is the title of the film? 2. What genre is it? 3. What is it about? 4. Is it based on a book? 5. Where is the film set? 6. When is the film set? 7. Who stars in the film? 8. Who plays the main role(s)? 9. Who is your favourite character in the film? (Why?) 10.What kind of person would like this film?

3. Write your review using your notes and the model text. Use some of the words and phrases in bold. Write between 100 and 150 words

Name: *Victoria*

Coraline and the secret door Animation, familiar and thriller, 2009

Coraline is a an American stop motion animated dark fantasy horror film directed and written for the screen by Henry Selick. It is based on the 2002 novella of the same name by Neil Gaiman. The movie is about the 11-years- old Coraline Jones and her family who move into an old house known as the Pink Palace Apartments. She, inside boredom, discovers a door that takes her to another world in a an alternate reality, which makes her take several important decisions. I have seen the movie many times, and i I like it more and more. As a big fan of this, i I had to read the book. and i did, During that, i I found a lot of differences and some quite large. One of the ones that struck me most was that Coraline's friend in the movie "wybie" didn't exist in the book. Although Coraline did not appreciate everything she had at first, she ended up discovering it and doing everything to preserve it. For that reason, Coraline is my favorito favorite character in the movie.

For being such a good film, keeping the idea of the book and teaching without forgetting the fun.

Feedback:

Excellent! ☺ Congratulations on your hard work on this activity! I just love this review! Very professional, and I loved the fact that you read the book after watching the movie! Great comparison as well.

Pay attention to the words I highlighted:

I highlighted in yellow words or letters I added

I highlighted in red things that should be eliminated

Remember:

“I” is always written with a capital letter.

Be careful with punctuation and spelling.

You can say: “Coraline is 11 years old” or “… the 11-year-old Coraline…” When the age is used as an adjective (to describe the girl), you have to use it in that way.

Appendix CC: The Growth Mindset Feedback Tool

The growth mindset feedback tool provides some appropriate expressions to use with students who do not work hard and do not get good results, who struggle despite hard work, and who succeed easily without effort

Taken from: https://s3-us-west-1.amazonaws.com/mindset-net-site/FileCenter/MM_Feedback-and-Framing-Tool.pdf

❖ **When they don't put in much effort and then don't succeed**

- ✓ I understand that it might seem daunting at first. How can we break this down into smaller tasks so it's not so overwhelming?
- ✓ What are your goals for this assignment/class/year? How can you make a plan to achieve those goals? What effort will be required?
- ✓ It looks like you're not putting forth much effort. Is this the way you see it? If not, what is it that you are doing, and how can I help you with some new strategies?
- ✓ What are the barriers to your success? How can I help you overcome them?
- ✓ Remember when you worked really hard for _____ and were successful? Maybe you could try those strategies again.
- ✓ If improvement is your goal, it's going to take effort and practice to get there. Our brains won't grow if we don't try hard things.
- ✓ What choices are you making that contribute to this outcome? If you want a different outcome, maybe you need to make different choices.

❖ **When they struggle, despite strong effort**

- ✓ OK. So, you didn't do as well as you wanted to do. Let's look at this as an opportunity to learn.
- ✓ What learning strategies are you using? How about trying some different ones?
- ✓ You are not there *yet*, Or, When you think you can't do it, remind yourself that you can't do it *yet*.
- ✓ I expect you to make some mistakes, since we're learning new things. If we examine what led to our mistakes, we can learn how to improve.
- ✓ Mistakes are welcome here! Our brains grow if we learn from our mistakes.
- ✓ You must be struggling now, but you are making progress. I can see your growth (in these places). (Note: say this only if they are making progress).
- ✓ Yes, it's tough – we come to school to make our brains stronger! If it were easy, you wouldn't be learning anything!
- ✓ You can learn to do it – it's tough, but you can, let's break it down into steps.
- ✓ Let's stop here and return tomorrow with a fresher air.
- ✓ I admire your persistence and I appreciate your mental effort. It will pay off.

❖ **When they succeed easily without effort**

- ✓ It's great that you have that down. Now we need to find something a bit more challenging so you can grow. That's what we all come to school to do.
- ✓ It looks like your skills weren't really challenged by this assignment. Sorry for wasting your time.
- ✓ I don't want you to be bored because you are not challenging yourself.
- ✓ We need to raise the bar for you now.
- ✓ You're ready for something more difficult.
- ✓ What skill would you like to work on next?
- ✓ What topic would you like to learn more about next?
- ✓ Could you find two other ways to solve that problem? Solving problems in different ways helps us deepen our understanding and be able to apply it.
- ✓ Can you help Billy learn what you've learned? By helping others, we not only contribute to their success, but we also deepen our own understanding.