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LANGUAGE LEARNING STRATEGY USE AND SELF-EFFICACY among EFL lower-secondary school students

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ABSTRACT

Learning strategies play a pivotal role in the process of acquiring a foreign language, standing out as one of the most influential factors contributing to learner success. These strategies help learners engage with language input more effectively, process and retain information, and develop autonomy in their learning journey. Equally important is the learner's self-efficacy - their belief in their own ability to succeed in specific learning tasks - which has consistently been shown to influence motivation, the level of effort invested, persistence in the face of difficulties, and overall academic achievement.

This thesis investigates the correlation between language learning strategy use and self-efficacy levels among lower-secondary school students learning English as a foreign language. The study is grounded in Oxford's (1990) classification of language learning strategies, which provides a comprehensive taxonomy of the various techniques learners use, and Bandura's (1997) theory of self-efficacy, which emphasises the role of personal beliefs in shaping learning behaviours and outcomes. To explore this relationship, the study adopted a quantitative approach, collecting data through a simplified version of a self-efficacy questionnaire and an adapted version of a language learning strategy questionnaire. These were administered to a total of five classes in an Italian lower-secondary school, including one class in the first year, two classes in the second year and two classes in the third year. The results of the analysis indicate a positive correlation between the use of strategies - particularly cognitive, metacognitive strategies - and higher levels of self-efficacy. This suggests that students who report more frequent and diverse use of strategies also tend to feel more capable in their language learning efforts.

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TABLE OF CONTENTS

List of Abbreviations

INTRODUCTION…….pp. 2-5

PART I - THEORETICAL FRAMEWORK

Chapter 1: Language Learning Strategies

1.1 Definitions and theoretical models……pp. 6-9

1.2 Classifications of strategies……...pp. 9-14

1.3 Oxford's six categories……..pp. 14-19

1.4 Strategies related to language skills……..pp. 19-24

1.5 Factors influencing the use of strategies……...pp. 24-29

1.6 Investigating language learning strategies: the SILL and Language Strategy Use Survey……..pp. 29-32

Chapter 2: The Concept of Self-Efficacy in Learning

2.1 Definition and theoretical foundations……..pp. 33-37

2.2 Self-efficacy and cognitive, motivational, affective processes…….pp. 38-41

2.3 Self-efficacy in language learning……pp. 41-45

Chapter 3: Interaction Between Language Learning Strategies and Self-Efficacy

3.1 Theoretical assumptions and previous studies on the correlation between LLSs and self-efficacy……pp. 46-53

3.2 Gaps in the literature and relevance of the present study…….pp. 53-55

PART II - RESEARCH DESIGN

Chapter 4: Objectives and Methodology

4.1 Objectives, research questions and operational hypotheses…….pp. 56-58

4.2 Context and participants sample……...pp. 59-61

4.3 Instruments used:.....pp. 61-62

4.3.1 Strategy questionnaire……pp. 62-70

4.3.2 Self-efficacy questionnaire……..pp. 70-74

4.3.3 Administration procedures……..pp. 74-76

4.4 Data analysis methods……..pp. 76-79

PART III - DATA ANALYSIS

Chapter 5: Results

5.1 Descriptive Statistics……pp. 80-84

5.2 Results for RQ1: Correlations between self-efficacy and overall use of LLSs……...pp. 84-85

5.3 Results for RQ2: Correlation between self-efficacy and LLS use across language skills……pp. 86-91

5.4 Results for RQ3: Correlation between self-efficacy and types of strategies……pp. 91-94

5.5 Summary of Findings……...pp. 94-95

Chapter 6: Discussion

6.1The gap between perceived self-efficacy and strategy use across skills……..pp. 98-103

6.2 Revisiting receptive-productive distinctions: the prominence of listening and the unexpected role of writing……..pp. 103-107

6.3 Cognitive and metacognitive strategies: developmental preferences and implications……..pp. 108-112

6.4 Educational implications……...……pp. 113-117

6.5 Study limitations……pp. 118-119

CONCLUSION……..pp. 120-124

References……...pp. 125-138

Appendices:

- Questionnaires used……..pp. 140-149
- Full statistical tables……pp. 150-153

LIST OF ABBREVIATIONS

CALLA: Cognitive Academic Language Learning Approach

CEFR: Common European Framework of Reference for Languages

EFL: English as a Foreign Language

FL: Foreign Language

FLA: Foreign Language Anxiety

L1: First Language/Native Language

L2: Second Language

LLS: Language Learning Strategy

SCT: Social Cognitive Theory

SILL: Strategy Inventory for Language Learning

SLA: Second Language Acquisition

SRL: Self-Regulated Learning

WTC: Willingness to Communicate

INTRODUCTION

In recent years, *language learning strategies* (LLSs) and *learner self-efficacy* have received increasing attention in the field of L2 and FL acquisition. Both constructs are known to play a central role in the student's success, particularly in fostering autonomous and long-term learning practices.

My personal interest in this topic stems from my own experience as a foreign language learner. Over the years, I observed that my confidence level significantly influenced the way I approach the learning process. When studying English, a language toward which I felt higher self-confidence, I noticed a greater tendency to plan my learning, monitor my progress, and apply strategies consciously and independently. In contrast, when studying German, in which I felt less confident, I was more inclined to rely heavily on the teacher's guidance or follow the textbook passively, engaging less in active strategic behaviour. This observation sparked my curiosity to investigate whether a measurable relationship exists between learners' perceived self-efficacy and their strategic behaviour in language learning. The theoretical rationale for examining LLSs and self-efficacy together lies in the recognition that learners' beliefs about their capabilities can shape not only the strategies they select but also the persistence and intensity with which these strategies are applied (Oxford, 1990; Chamot & O'Malley, 1987). Conversely, strategic engagement can reinforce learners' self-efficacy through successful experiences, suggesting a dynamic, bidirectional relationship worthy of empirical investigation. Beyond my personal experience, my professional aspiration to become an English teacher further reinforced my curiosity, as I believe that understanding these constructs can help educators design interventions that not only improve linguistic outcomes but also empower students to become more autonomous and resilient learners.

The relevance of this topic is also supported by a growing body of research indicating a positive correlation between self-efficacy and the use of LLSs (e.g., Oxford, 1990, 2011, 2016; Chamot & O'Malley, 1987, 1990, 1994; Bandura, 1995, 1997). However, while these studies provide valuable insights, research in specific educational

contexts, such as lower secondary school, remains relatively scarce. Understanding how these constructs interact at this stage may help educators support their students more effectively by promoting both the use of effective strategies and the development of positive self-beliefs. It would encourage learner autonomy, resilience and motivation.

The present research took place in a lower secondary school context, involving a sample of 89 students aged approximately 11 to 13. This age group was deliberately chosen because early adolescence is a critical developmental stage in which learners begin to consolidate both cognitive strategies and personal beliefs about their learning abilities, paving the way for the gradual formation of enduring academic habits.

The main objective of this thesis is to investigate the relationship between LLS use and perceived self-efficacy among lower secondary school students learning English as a foreign language (EFL). Specifically, the research aims to determine whether learners with higher levels of self-efficacy tend to employ a wider range or particular types of strategies, and whether certain patterns of strategy use emerge across the four language skills. To achieve this, the study is guided by the following central research questions (RQs): whether students' perceived self-efficacy is significantly correlated with their overall use of LLSs (RQ1); whether the strength or nature of this correlation varies across specific language skill areas (listening, reading, writing, and speaking) (RQ2); and which categories of LLSs, namely cognitive, metacognitive, memory, social, or compensation strategies, are most strongly associated with higher levels of self-efficacy (RQ3). A secondary objective is to contribute to the pedagogical understanding of how self-beliefs and strategy use interact during early adolescence, a developmental phase in which students start forming stronger academic habits and attitudes. Understanding which strategies are most strongly linked to self-efficacy across different language skills, for example, can inform differentiated instruction, helping teachers prioritise specific approaches according to individual or group needs. By investigating these dynamics, the thesis also seeks to offer practical suggestions that extend beyond mere classroom practice, potentially contributing to the development of long-term learning habits, resilience, and learner autonomy, which are crucial during early adolescence.

To address these objectives, the study adopts a quantitative research design combining two adapted instruments: an adaptation of the *Language Strategy Use Survey* (Oxford, Cohen, & Chi, 2002) for the investigation of LLSs, and a self-efficacy questionnaire adapted from Wang, Kim, Bai, and Hu (2014), to better suit the younger age group of the present sample. Data were collected through these questionnaires and subsequently analysed using descriptive statistics and inferential methods to identify correlations and possible predictive relationships between the two constructs. The analysis further investigates the relationship between self-efficacy scores and the frequency of reported strategy use, offering a more detailed picture of how self-beliefs may influence strategic behaviour.

The thesis is divided into three main sections: the theoretical framework, the research design, and the data analysis. Part I, the theoretical framework (Chapters 1-3), provides a comprehensive foundation for understanding LLSs and self-efficacy. Chapter 1 examines LLSs, including definitions, theoretical models, classifications, with particular attention to Oxford's (1990) six categories, which encompass cognitive, metacognitive, memory, social, affective, and compensation strategies, as well as their relationship to the four language skills. It also considers factors influencing strategy use and introduces two major instruments discussed in the literature: the Strategy Inventory for Language Learning (SILL; Oxford, 1986), presented as a foundational tool in LLS research, and the *Language Strategy Use Survey* (Oxford, Cohen, & Chi, 2002), which was adapted and used in the present study. Chapter 2 focuses on the construct of self-efficacy. It outlines its theoretical foundations, particularly Bandura's Social Cognitive Theory (Bandura, 1997), its influence on cognitive, motivational, and affective processes, and its specific relevance in language learning. Chapter 3 integrates the perspectives from the previous chapters by reviewing theoretical and empirical studies on the relationship between the two constructs, and by identifying gaps in the literature that the present study aims to address.

The second section describes the research design. Part II (Chapter 4) details the study's objectives, research questions, and operational hypotheses, and provides details about the sample, context, and the instruments used: two adapted questionnaires

focusing on strategy use and self-efficacy, respectively. It also explains the administration procedures and the statistical methods adopted for data analysis. This chapter ensures that the methodology is clearly linked to the research aims and allows for a rigorous investigation of the proposed relationships.

The third and final section presents the results and discussion. Part III begins with Chapter 5, which presents descriptive statistics and the results of the analyses, including correlations between self-efficacy and overall LLS use, as well as patterns across different language skills and types of strategies, and concludes with a summary of the findings. Chapter 6 discusses the results in depth, highlighting the gap between perceived self-efficacy and strategy use across skills, reflections on receptive-productive distinctions with particular attention to listening and writing, developmental patterns in cognitive and metacognitive strategy use. It finally concludes with educational implications of the findings, study limitations and directions for future research.

Part I: Theoretical Framework

Chapter 1: Language Learning Strategies

This chapter provides an overview of language learning strategies (hereafter LLSs), a core concept in the field of Second Language Acquisition (hereafter SLA). It begins by presenting various definitions and theoretical models (1.1), followed by an examination of major classifications proposed by prominent scholars, such as Chamot and O'Malley, Rubin, Oxford, and Stern (1.2). Section 1.3 focuses specifically on Oxford's taxonomy, which is analysed in depth as it constitutes the theoretical framework underpinning the present study's data analysis. The fourth section (1.4) investigates how strategies are used across different language skills, including listening, speaking, reading and writing, as well as in vocabulary acquisition and translation tasks. Section 1.5 considers the individual and contextual factors, such as age, motivation, and learning environment, that may influence learner's strategy use. Finally, Section 1.6 introduces key tools developed to investigate LLSs in empirical research, specifically the *Strategy Inventory for Language Learning* (SILL) and the *Language Strategy Use Survey* by Oxford, Cohen, and Chi. Throughout the chapter, emphasis is placed on how strategies contribute to more effective and autonomous language learning.

1.1 Definitions and theoretical models

The concept of LLSs has become central to understanding how learners actively engage with, manage, and enhance their language acquisition process. Since the mid-1970s scholars have investigated how learners use conscious techniques to direct their learning and improve outcomes. The study of these strategies is essential in SLA, not only because it sheds light on what learners do, but also because it highlights how strategic behaviour correlates with success in language learning. The earliest systematic attention to learning strategies in language learning is often credited to Rubin (1975),

whose seminal article *What the 'Good Learner' Can Teach Us* laid the groundwork for subsequent research in this area. Rather than offering a formal definition of strategies, Rubin focused on describing the behaviours and attitudes of successful language learners, identifying seven key characteristics such as willingness to guess, a strong drive to communicate, readiness to take risks without inhibition, attention to both meaning and form, active practice, and self-monitoring of speech (Rubin, 1975, pp. 45-47). Chamot and O'Malley provided a more formal definition of LLSs:

> techniques and devices used by second language learners for remembering and organising samples of the second language. One of the ways learners become actively involved in controlling their own learning is by using strategies. Strategies are the special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information. (Chamot and O'Malley, 1990, p. 1).

This definition highlights the intentional and mental nature of strategies, portraying them not as automatic habits, but as purposeful actions learners adopt to enhance their language development. It also underscores the dual cognitive and behavioural dimensions of strategy use, suggesting that both internal mental processes and observable actions are relevant to effective learning. Chamot and O' Malley's (1990) framework, deeply rooted in information-processing theory and Anderson's (1980) model of skill acquisition, views strategy use as a key component in moving from declarative to procedural knowledge.

Shortly thereafter, Rebecca Oxford (1990) offered a broader and more learner-friendly definition in her influential book *Language Learning Strategies: What Every Teacher Should Know.* She described strategies as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations"(p.8). This definition goes beyond the functional and mentalistic aspects emphasised by Chamot and O'Malley, bringing attention to motivational, emotional, and social factors that influence learning. Although many foundational definitions of LLSs underscore the deliberate and conscious nature of strategy use, recent scholarship has called into question whether strategies are always applied with full awareness. While definition of learning strategies often emphasise

elements such as actions, behaviours, tactics, and procedures, there remains considerable ambiguity concerning the degree of learner awareness involved in their use. In contrast, Oxford (2016) offered a more explicit view by defining self-regulated L2 learning strategies as "deliberate goal-directed attempts to manage and control efforts to learn the L2. These strategies are broad, teachable actions that learners choose from among alternatives and employ for L2 learning purposes" (p.12).

To fully understand the function and value of LLSs, in fact, it is essential to consider the theoretical paradigms that inform them. Historically, the field has been primarily influenced by cognitive learning theories, though sociocultural approaches have added important complementary dimensions. From a cognitive perspective, strategies are understood as mental operations that support learners in processing and organising linguistic input. Learners are seen as active processors who use strategies to control and optimise their learning. This cognitive view of LLSs, exemplified by Chamot and O'Malley's taxonomy, is closely linked to Anderson's (1980) theory of skill acquisition. Anderson proposed the information processing model of learning, which posits that the brain functions much like a computer, receiving, storing, and retrieving data efficiently when guided by appropriate strategies (Anderson, 1983). According to his ACT (Adaptive Control of Thought) model, learning is conceptualised as a progression from declarative knowledge (knowing that), which is "flexible and can be accessed in many ways" (Anderson, 1983, p. 39) to procedural knowledge (knowing how), which is "rigid but efficient" (p. 39), through practice and strategy use. Such use of strategies to guide the learning process reflects the broader concept of self-regulated learning (hereafter SRL), which encompasses learners' ability to plan, monitor, and evaluate their own progress. Within this model, strategies serve as bridges in the transformation of new language input into internalised competence, thereby supporting long-term academic success. As Zimmerman (2000, p.14) defines it, "Self-regulation refers to self-generated thoughts, feelings and actions that are planned and cyclically adapted to the attainment of personal goals." This cyclical process aligns closely with the deliberate and reflective nature of LLSs, highlighting how cognitive models have contributed significantly to understanding how learners manage and direct their learning behaviour, although, as noted earlier, the degree of intentionality may vary.

Yet, as scholars as Long (1997), Larsen-Freeman (2007), Norton (2013), and Pennycook (2010) have pointed out, cognitive models do not fully account for the social, contextual, and interactional dimensions of language learning. This limitation is addressed by sociocultural theory, especially as developed by Vygotsky (1978). From this perspective, learning is not just an internal individual process but also a socially mediated activity. Knowledge and skills are co-constructed through interaction with others, whether peers, teachers, or cultural tools. As Vygotsky famously stated, "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level", so that "all the higher functions originate as actual relations between human individuals" (Vygotsky, 1978, p. 57). This highlights how interpersonal interaction is a prerequisite for intrapersonal development. Within this framework, strategies are shaped by the learner's environment, social interactions, and participation in meaningful activity. For example, Donato (1994) introduced the notion of collective scaffolding, showing that learners often develop strategies collaboratively during group tasks (pp. 33-56). Similarly, Lantolf (2000) argued that strategy use cannot be fully understood without considering the learner's goals, identity, and the sociocultural context in which learning occurs. Thus, strategies are not merely individual choices but also socially and culturally constructed practices.

Together, cognitive and sociocultural perspectives offer a holistic understanding of LLSs: they are both mental tools for individual regulation and social practices that emerge from interaction and context.

1.2 Classifications of strategies

LLSs have been the focus of extensive theoretical and empirical investigations. Over time, various scholars have proposed different taxonomies to categorise the strategic behaviour of language learners, each reflecting distinct theoretical perspectives and methodological orientations. This section presents a comparative analysis of four influential classification systems - those developed by Chamot and O'Malley, Rubin, Oxford, and Stern, highlighting their conceptual structures, terminological differences, and theoretical orientations.

Among the earliest systematic taxonomies, Chamot and O'Malley's (1990) framework organises strategies into three principal categories: cognitive, metacognitive and socio-affective.

- Cognitive strategies are concerned with the manipulation and transformation of learning materials. These include practices such as rehearsal, summarisation, inferencing, and imagery, which directly engage learners in processing linguistic input.
- Metacognitive strategies, in contrast, involve the orchestration of the learning process itself, through planning, monitoring comprehension, and evaluating progress.
- Socio-affective strategies, the third category, pertain to the social and emotional dimensions of learning, such as seeking clarification through interaction or managing anxiety.

The strength of this model lies in its foundation in cognitive psychology, particularly in the Information Processing Theory, which conceptualises language learning as the dynamic handling of incoming information through planning, monitoring, and evaluation mechanisms.

Rubin (1987) proposed a different division, which also influenced subsequent models. Her taxonomy distinguishes between strategies directly involved in learning and those that, indirectly, facilitate communication. Under the umbrella of Learning Strategies, Rubin includes Cognitive and Metacognitive types.

- Cognitive strategies:
  Strategies that refer to the actual procedure for processing linguistic information, such as analysing expressions, practicing structures, or translating.
- Metacognitive strategies:
  Strategies that focus on learner autonomy, including setting goals, organising study time, and evaluating outcomes.

- Communication Strategies
  Strategies that aim to maintain interaction despite gaps in linguistic knowledge, including gestures, or asking for repetition.
- Social Strategies
  Strategies that involve collaborating with others or seeking opportunities to use the language.

These social and communicative aspects broaden the conceptualisation of strategic competence beyond mere internal cognitive processing, not leading directly to the obtaining, storing, retrieving, and using of language (Rubin and Wenden, 1987, pp. 23-27). While not rooted in a single unifying theoretical model, Rubin's taxonomy reflects an empirical and functionalist orientation based on observing effective learner behaviours.

Rebecca Oxford's classification system, developed in 1990, represents one of the most detailed and pedagogically oriented frameworks. Her taxonomy separates LLSs into two superordinate groups: *direct* and *indirect* strategies.

- Direct strategies, which include memory, cognitive and compensation strategies, are used for immediate engagement with the language.
  - Memory strategies assist in storing and retrieving information through categorisation, association, or imagery.
  - Cognitive strategies involve problem-solving processes such as reasoning, repetition, and analysis.
  - Compensation strategies enable learners to overcome knowledge gaps by guessing meanings, using synonyms, or employing gestures.
- Indirect strategies, on the other hand, are used to regulate and support the learning process. These comprise metacognitive, affective, and social strategies.
  - Metacognitive strategies allow learners to plan, arrange, and assess their learning processes.
  - Affective strategies help manage emotional responses to language learning; learners may, for example, use humour to reduce anxiety or positive reinforcement to sustain motivation.

    - Social strategies emphasise interaction with others: asking questions, cooperating with efficient speakers, and becoming familiar with the target culture.

Oxford's classification is accompanied by the Strategy Inventory for Language Learning (SILL), an instrument designed to systematically assess learners' strategy use, which will be discussed in more detail in paragraph 1.6. Oxford's taxonomy is grounded in a learner-centered approach that emphasises individual autonomy, motivation, and active involvement in the learning process. As she explains, LLSs' ultimate aim is to support the development of communicative competence (Oxford, 1990, pp. 8-9). Her framework reflects a holistic vision of the learner that goes beyond purely intellectual activity to include emotional and interpersonal dimensions. Furthermore, she draws connections to Gardner's theory of multiple intelligences, suggesting that different learners may favour different types of strategies based on their cognitive profiles. The inclusion of social and affective strategies also points to affinities with social learning theory, particularly in the way learners manage emotions and engage in interaction as part of the learning process.

Stern (1992), differently, approaches strategy classification from a more holistic and experiential perspective. He identifies five broad categories: Management and Planning Strategies, Cognitive Strategies, Communicative-Experiential Strategies, Interpersonal Strategies, and Affective Strategies.

- Management and Planning Strategies align with what other scholars describe as metacognitive strategies, involving learners' ability to organise and direct their own learning processes.
- Cognitive Strategies relate to the mental manipulation of language input, similar to those proposed in earlier frameworks.
- The category of Communicative-Experiential Strategies highlights learners' effort to use the language despite incomplete knowledge, often through paraphrasing, approximation, or repetition.
- Interpersonal Strategies refer to efforts to engage with speakers of the target language and build communicative competence.

- Affective Strategies, in Stern's model, encompass the emotional components of language learning, recognising the influence of motivation, anxiety and attitudes.

Stern's classification reflects a broad pedagogical philosophy, where strategy use is integrated with experiential learning, cultural engagement, and learner autonomy. His model echoes elements of the others while emphasising learners' meaningful involvement in real-world language use.

While all four taxonomies acknowledge that language learning involves a combination of cognitive, affective and social processes, they differ in focus and elaboration. Chamot and O'Malley (1990) offer a cognitively founded but relatively concise tripartite structure. Rubin (1987) expands the scope by introducing interactional functions through communication strategies. Oxford (1990) provides the most nuanced and pedagogically operational framework, with six clearly defined strategy types and associated diagnostic instrument (SILL) that has gained widespread empirical use. Stern's model (1992), by contrast, integrates strategy use into a broader pedagogical vision of language education that includes cultural immersion and learner self-direction.

From a theoretical standpoint, Chamot and O'Malley (1990) are grounded more explicitly in cognitive psychology. As noted by Barnwell (1991), they reject naturalistic models in favour of a view that conceptualises L2 learning as analogous to the acquisition of other cognitive skills, which can be enhanced through strategic instruction. Rubin (1987) also adopts a cognitive orientation and complements it with attention to social and interactional strategies. Oxford (1990) builds on and broadens the conceptual scope by integrating elements of humanistic and social learning theories. As she explains, LLSs go "beyond just cognition", reflecting the idea that "language learning is indisputably an emotional and interpersonal process as well as a cognitive and metacognitive affair" (p. 11). Stern (1992), finally, draws from an eclectic tradition, integrating both structured cognitive operations and affective social factors into a unified pedagogical framework. In addition to these theoretical differences, important overlaps and interconnections exist among the models. Several strategy types, such as metacognitive planning, interpersonal cooperation, or the use of compensatory techniques, appear across multiple taxonomies, though labelled differently.

For example, Oxford's (1990) social strategies are comparable to Rubin's (1987) social and communication strategies and to Stern's (1992) interpersonal strategies. Affective strategies also cut across models, highlighting the relevance of emotional regulation in language learning. Furthermore, distinctions between categories are sometimes fluid: metacognitive evaluation may entail cognitive effort, while memory techniques may overlap with analytical cognitive strategies. These intersections suggest that while taxonomies play a valuable role in organising pedagogical discourse, real-world strategy use often transcends rigid classifications, especially given that "there is no complete agreement on exactly what strategies are; how many strategies exist; how they should be defined, demarcated, and categorized", making it unsurprising that "classification conflicts are inevitable" (Oxford, 1990, p. 17).

In sum, although divergent in structure and emphasis, these classifications collectively underscore the multifaceted nature of LLSs. Their comparative analysis provides a foundation for further empirical inquiry and for the development of effective instructional practices tailored to diverse learner profiles.

1.3 Oxford's six categories

Section 1.3 is presented as a separate, in-depth discussion following the comparative overview. While the space devoted to other authors is intentionally more concise to preserve balance, Oxford's taxonomy requires and justifies closer scrutiny due to its central methodological and analytical role in the present research. For this reason, a more detailed examination of its six categories is provided in the following section, which serves as a necessary conceptual foundation for the subsequent chapters.

In this context, Oxford's (1990) taxonomy stands out as one of the most influential and comprehensive classification systems of LLSs, having become foundational in both theoretical and applied SLA research. It organises into two broad classes, direct and indirect, which are "equally important and serve to support each other in many ways" (p.12). They are further divided into six major categories, each containing multiple subcategories and specific strategies. Oxford's classification is based on a combination of theoretical foundations and empirical findings and aims to

provide both researchers and educators with a practical yet detailed framework for understanding how learners approach the task of acquiring a new language. One of the key innovations of her model is its recognition of the interplay between cognitive or behavioural components (cf. Rubin 1987; Chamot and O'Malley, 1990), while at the same time integrating emotional and interpersonal factors into the strategic process, highlighting the learner as an active, multidimensional agent.

Oxford (1990) defines **direct** strategies as those that "involve direct learning and use of the subject matter" (p.11), the language itself: processing, producing, or retrieving it. These strategies are closely related to the mental and physical actions a learner undertakes to handle the language input or output. Direct strategies are, according to Oxford, Memory Strategies, "for remembering and retrieving new information", Cognitive Strategies, "for understanding and producing the language", and Compensation Strategies, "for using the language despite knowledge gaps" (1990, pp. 14-15). To be more specific:

i) Memory Strategies help learners store and retrieve new information. They rely heavily on mental associations, imagery, and structured review. It is essential, however, that these are "personally meaningful to the learner, and the material to be reviewed must have significance" (1990, p. 39). Oxford divides them into four subgroups:

- *Creating mental linkages* (e.g., grouping, associating/elaborating, placing new words into a context)
- *Applying images and sounds* (e.g., using imagery, semantic mapping, representing sounds in memory)
- *Reviewing well* (e.g., structured reviewing)
- *Employing action* (e.g., using physical response or mechanical techniques)

These strategies are particularly useful for vocabulary learning. For example, learners might group related words (e.g., clothing items) or use flashcards and visual cues to create associations between form and meaning. As Oxford (1990) explains, "memory strategies reflect simple principles such as arranging things in order, making associations, and reviewing" (p. 39).

ii) Cognitive Strategies are the most commonly reported strategies among learners (Oxford, 1990, p. 43). They involve conscious manipulation of language through repetition, analysis, summarisation, and transformation. Cognitive Strategies fall into four subgroups:

- *Practicing* (e.g., repetition, formally practicing with sounds and writing systems, recognising and using formulas and patterns)
- *Receiving and sending messages* (e.g., getting the idea quickly, using resources for receiving and sending messages)
- *Analysing and reasoning* (e.g., reasoning deductively, translating, analysing contrastively)
- *Creating structure for input and output* (e.g., taking notes, summarising, highlighting)

Cognitive Strategies support language production and comprehension through internalised learning mechanisms. For example, the strategy "I say or write new English words several times" reflects controlled practice (Oxford, 1990, p. 295). Learners might also summarise a reading passage to extract its main ideas, or mentally organise information in diagrams.

iii) Compensation Strategies are used when learners encounter gaps in their language knowledge. The goal is to maintain communication despite limited linguistic resources. Oxford classifies these strategies into two subgroups:

- *Guessing intelligently in Listening and Reading* (e.g., using linguistic clues, using other clues)
- *Overcoming limitations in Speaking and Writing* (e.g., switching to the mother tongue, getting help, using mime or gesture, avoiding communication partially or totally, selecting the topic, adjusting or approximating the message, coining a word, using a synonym or circumlocution)

Such strategies allow learners to keep the conversation going. As Oxford (1990) notes, "compensation strategies help learners make up for missing knowledge" (p. 47). For example, a learner might say *the thing you use to cut paper* when they forget the word *scissors*, or use gestures to reinforce spoken messages. An exemplifying item from the SILL (version 7.0) is "If I can't think of a word in English, I use gestures" (Oxford,

1990, p. 295). This ability to keep communication flowing is a key marker of communicative competence.

Indirect strategies, unlike direct ones, do not involve direct manipulation of the language but instead "support and manage language learning without (in many instances) directly involving the target language" (Oxford, 1990, p. 135). If the category of direct strategies is referred to as "the Performer in a stage play" (Oxford, 1990, p. 14), that of the indirect ones is likened by Oxford to "the Director of the play" (p. 15). These include Metacognitive Strategies, "for coordinating the learning process", Affective Strategies, "for regulating emotions", and Social Strategies, "for learning with others" (1990:15).

i) Metacognitive Strategies, as stated by Oxford (1990), are "actions which go beyond purely cognitive devices, and which provide a way for learners to coordinate their own learning process" (p. 137) by organising, planning, and evaluating their study efforts. Oxford divides them into three subgroups:

- *Centering Your Learning* (e.g., overviewing and linking with already known material, paying attention, delaying speech production to focus on listening)
- *Arranging and Planning Your Learning* (e.g., finding out about language learning, organising, setting goals and objectives, identifying resources)
- *Evaluating Your Learning* (e.g., self-monitoring, self-evaluating)

A typical metacognitive behaviour is shown in the item: "I plan my schedule so I will have enough time to study English" (Oxford, 1990, p. 296). Learners using these strategies often reflect on their learning outcomes and make adjustments to their methods. Metacognitive Strategies are, in fact, key to developing learner autonomy.

ii) Affective Strategies are aimed at managing emotions, motivation, values and attitudes (Oxford, 1990, p. 149), which can significantly affect language learning. Oxford (1990) groups them into three subcategories:

- *Lowering Your Anxiety* (e.g., using progressive relaxation, music, or laughter)
- *Encouraging Yourself* (e.g., making positive statements, taking risks wisely, rewarding oneself)

- *Taking Your Emotional Temperature* (e.g., using checklists, journals, or discussions with others)

For example, the strategy "I try to relax whenever I feel afraid of using English" (Oxford, 1990, p. 296) reflects a conscious effort to reduce affective barriers. Affective Strategies are particularly important for learners who experience anxiety or low confidence in speaking. As Oxford (1990) notes, self-esteem and motivation play a crucial role, as "attitudes are strong predictors of motivation in any area of life, and especially in language learning" (Oxford, 1990, p. 141). In this light, Affective Strategies not only support emotional regulation but also indirectly boost persistence and performance through improved self-efficacy and positive attitudes.

iii) Social Strategies, the last category, involve interaction with others to facilitate language learning, which is particularly vital given that language itself "is a form of social behavior" (Oxford, 1990, p.144). Oxford groups them into three categories:

- *Asking Questions* (e.g., for clarification or verification)
- *Cooperating with Others* (e.g., working with peers or proficient users)
- *Empathising with Others* (e.g., developing cultural understanding and awareness of others' feelings)

Thus, engaging in the aforementioned activities not only enhances communicative competence but also aligns with the inherently social nature of language itself, which Oxford considers essential to the language learning process. For instance, the strategy "I ask English speakers to correct me when I talk" (Oxford, 1990, p. 151) exemplifies how interaction with others fosters both language development and self-awareness. Moreover, collaboration and intercultural empathy not only strengthen communicative skills but also play a key role in sustaining learner motivation.

Oxford emphasises that these strategies do not function in isolation. Drawing on the concept of *mutual support*, she explains that "they interact with and help each other" (Oxford, 1990, p. 15). Successful learners often combine strategies from multiple groups to perform a single task, reflecting the integrative and adaptive nature of language learning. For example, composing a paragraph in English may involve metacognitive planning to organise ideas, cognitive strategies for drafting and revising,

compensation strategies to manage lexical gaps, and affective strategies to regulate anxiety. This dynamic interplay among strategies is a defining feature of Oxford's model, which views learning as a complex, non-linear process requiring the coordination of various mental, emotional, and social resources. Another strength of Oxford's classification is its applicability to both instruction and assessment. The strategies can be taught explicitly through strategy training programs and measured using structured instruments such as the SILL. This duality has contributed to the enduring influence of her taxonomy in both classroom settings and empirical studies.

In sum, Oxford's (1990) taxonomy provides a comprehensive framework that integrates the cognitive, affective, and social dimensions of language learning. Its structure, precisely dividing strategies into direct and indirect classes, and further into six interrelated categories, offers a detailed yet accessible system for analysing learner behaviour. These six groups serve as the foundation for her assessment instrument, the *Strategy Inventory for Language Learning*, discussed in Section 1.6.

1.4 Strategies related to language skills

The process of language learning involves developing proficiency in four core skills: listening, speaking, reading, and writing. Listening is a real-time process that requires learners to decode sounds, interpret meaning, and integrate new information quickly. Speaking involves not only vocabulary and grammar but also pronunciation, fluency, and interactive communication. Reading allows learners more time to process language visually, making use of decoding skills, background knowledge, and inference. Writing is often considered the most complex skill, as it demands planning, organising ideas, and producing coherent text, relying both on linguistic knowledge and metacognitive control.

It is worth considering how the various strategy types identified by Oxford (see paragraphs 1.2 and 1.3) contribute to the development and enhancement of the four main language skills.

To illustrate this relationship more clearly, Table 1 summarises how the main categories of strategies in Oxford's taxonomy can be associated with each of the four language skills, based on their predominant functions. It should be noted, however, that these associations are not rigid: many strategies support multiple skills simultaneously, depending on the context and the learner's needs. For instance, metacognitive planning can guide both reading and speaking tasks, while compensation strategies like guessing or paraphrasing are beneficial across both receptive and productive domains. This table should therefore be viewed as a flexible heuristic rather than a strict classification.

Table 1. Correspondence between Oxford's strategies and the four language skills.

Strategy group	Skills			
	Listening	Speaking	Reading	Writing
Memory	Associating sounds, mnemonics	Chaining, using imagery	Grouping, semantic mapping	Imagery, keyword method
Cognitive	Listening for gist, inferencing, note-taking	Repetition, practice, recombination	Analysing, skimming, scanning, deduction	Summarising, outlining, reasoning
Compensation	Guessing meaning from context	Circumlocution, self-correction	Predicting meaning, contextual clues	Avoiding gaps with synonyms or paraphrases
Metacognitive	Planning, monitoring comprehension	Monitoring speech, evaluating performance	Goal-setting, self-questioning	Planning, organising, revising
Affective	Anxiety reduction (e.g., breathing)	Positive self-talk, confidence building	Encouragement to persist with long texts	Managing frustration with long writing tasks
Social	Asking for repetition, clarification	Asking for help, practicing with others	Peer feedback, collaborative reading	Peer editing, writing exchanges

Source: Oxford (1990), pp. 57-98, 151-173.

As shown above, each strategy group tends to play a more prominent role in specific skill domains, but the boundaries are fluid. Effective learners often apply strategies flexibly across modalities, adapting them to the task at hand. This reinforces the idea that strategic competence involves not only knowing which strategies to use, but also understanding their function and transferability. As Oxford (1990, p. 12) points out, "strategy training is most effective when students learn why and when specific strategies are important, how to use these strategies, and how to transfer them to new situations."

Building on this overview, it is useful to explore more closely how specific strategy subgroups within Oxford's taxonomy function to support the different macro skills.

Memory strategies are essential tools that aid learners in storing, retrieving, and using new language information effectively (Oxford, 1990). Oxford (1990) identifies various subtypes such as creating mental images, applying images and sounds, reviewing well, and employing action, which play a crucial role in reinforcing vocabulary and grammar retention. These strategies support all four language skills but tend to be particularly influential in reading and listening, where recall and lexical and syntactic knowledge are fundamental. For instance, semantic mapping and keyword methods assist in expanding and retrieving vocabulary necessary for comprehension and production. In speaking, placing new words into a context and representing sounds in memory facilitate fluent speech by helping learners connect ideas and words dynamically. Listening benefits from associating sounds with meanings, improving the ability to recognise and interpret auditory input. Moreover, memory strategies work in tandem with metacognitive strategies by providing learners with techniques to manage their cognitive load and enhance long-term retention, as emphasised by Chamot and O'Malley (1987).

Oxford (1990) further breaks down cognitive strategies into several subtypes, specifically practicing, receiving and sending messages, analysing and reasoning, and creating structure for input and output, each of which plays a distinctive role in

language acquisition. Practicing strategies, including repetition, formal practice, and recombination, are closely tied to speaking and writing skills. They promote fluency and accuracy by reinforcing linguistic patterns through repeated use. Receiving and sending messages strategies, such as using resources, skimming and scanning, are more relevant to receptive skills like reading and listening, where efficient extraction of meaning is essential. Strategies focused on analysing and reasoning, such as deduction or translation, contribute to both comprehension and production, facilitating deeper processing of input and more precise output. Finally, creating structure for input and output, through summarising, note-taking, or highlighting, supports all four skills by helping learners organise language cognitively for both understanding and expression.

Compensation strategies, particularly guessing meaning from context and overcoming limitations in speaking or writing, also serve a vital role. Guessing intelligently, by using linguistic or contextual clues, is especially useful for reading and listening, where learners often face unknown vocabulary. Meanwhile, strategies such as circumlocution, switching to the mother tongue, or asking for help enable learners to maintain communicative flow in speaking and writing despite gaps in their knowledge. These strategies empower learners to navigate real-time tasks with greater confidence and autonomy.

Oxford's indirect strategies, while not directly manipulating language input or output, are equally critical in skill development.

Metacognitive strategies are broken down into the following three sets: centering, arranging and planning, and evaluating – learning. Metacognitive strategies such as planning, focusing, and evaluating are foundational for effective learning across all skills. For instance, distinguishing directed attention and selective attention, as well as goal setting and evaluation are particularly beneficial in writing and speaking, where learners must frequently assess and adjust their performance. Chamot and O'Malley (1987) also stress the importance of metacognitive strategies, suggesting that these higher-order processes are crucial for fostering learner autonomy and strategic competence. Similarly, Wenden (1998) emphasises the regulatory role of metacognition,

especially in complex tasks like reading comprehension and written composition, where learners must plan, monitor, and evaluate their own understanding.

Affective strategies include lowering your anxiety, encouraging yourself, and taking your emotional temperature (Oxford, 1990). They all have a cross-cutting impact on all language skills. These strategies are particularly helpful in reducing stress during performance-heavy tasks such as speaking or listening under time pressure. For example, positive self-talk and relaxation techniques can improve oral fluency and listening comprehension by lowering affective barriers. In the same vein, Oxford and Nyikos (1989) highlight that motivation and affective control significantly influence the frequency and effectiveness of strategy use. These affective factors may be particularly relevant in productive skills, which often require initiative and confidence.

Social strategies such as asking questions, cooperating with peers, or empathising with interlocutors, are most directly linked to speaking and listening, as these skills rely heavily on interaction and communication. However, they also support reading and writing indirectly by fostering collaborative learning environments and encouraging feedback-seeking behaviour. Cohen (1990) also underscores the role of social strategies in fostering language awareness and strategy transfer, noting that interaction provides opportunities for metalinguistic reflection and skill integration.

Listening, in particular, has received special attention in strategy research. Vandergrift (1997) highlights the crucial role of both cognitive and metacognitive strategies in enhancing listening proficiency. While novice learners tend to rely on surface-level cognitive strategies such as translation and repetition, more proficient listeners employ deeper metacognitive strategies like comprehension monitoring and problem identification, which allow for more effective processing and integration of auditory input. These findings suggest that the development of listening skills relies not only on the use of cognitive strategies, but even more on the progressive integration of metacognitive strategies, which enable learners to plan, monitor, and evaluate their listening processes more effectively (Vandergrift, 1997). Speaking, by contrast, often demands a higher reliance on compensation and affective strategies. Learners must maintain fluency even when linguistic knowledge is incomplete, often resorting to

paraphrasing, hesitation devices, or self-correction. Writing, on the other hand, calls for an interplay of cognitive, metacognitive, and affective strategies. Planning, organising, and revising require cognitive control, while sustained writing tasks often depend on motivation and emotional regulation. Reading tends to involve a complex mix of inferencing, skimming, and decoding, with metacognitive strategies enhancing comprehension monitoring and adjustment.

In sum, Oxford's taxonomy offers a solid and structured basis for linking strategic behaviour to skill development. Further contributions in the field (e.g., Wenden, Oxford and Nyikos, Vandergrift, Chamot & O'Malley, Cohen) have broadened this framework by emphasising learner autonomy, affect, and task-specific demands. Together, these perspectives underline that language learning success depends not just on knowing a wide range of strategies, but on the learner's ability to apply them appropriately and adaptively across contexts and skills.

1.5 Factors influencing the use of strategies

The use of LLSs does not occur in a vacuum; rather, it is shaped by a complex interplay of individual and contextual variables. Researchers have long sought to identify the factors that influence learners' strategic behaviour in SLA, yet the findings remain nuanced and at times, contradictory. A useful starting point in conceptualising these variables is the distinction between individual differences (IDs) and group differences (GDs), as proposed by Macaro (2009). Group differences, such as gender or cultural background, are attributes that allow learners to be categorised into social or demographic groups. In contrast, individual differences, such as language proficiency, personality traits, motivation, or perceived self-efficacy, capture the unique characteristics of each learner and are typically assessed on a continuous scale. For instance, while gender is often discussed in terms of group-based tendencies, proficiency and achievement are better understood as ID constructs, reflecting learners' personal development along measurable continua (Macaro, 2009).

Among the most salient IDs are psychological variables such as introversion and extraversion, motivational orientation, and perceived self-efficacy. Bandura (1993, 1995) emphasised that self-efficacy, the belief in one's ability to accomplish specific learning tasks, plays a crucial role in determining which learning activities a learner chooses to engage in. Closely linked to this is the construction of motivation, widely recognised as one of the most powerful predictors of strategic behaviour. However, as Dörnyei & Ottó (1998) argue, motivation is not a static trait but a temporal and dynamic process that fluctuates depending on both internal states and external influences. Particularly relevant is the role of the teacher, whose feedback and classroom practices can significantly shape a learner's motivation by valuing the process of learning as much as the final outcomes (Macaro, 2019).

In parallel, the field has increasingly acknowledged the interaction between cognitive, affective, and sociocultural influences. Scholars have explored how personal characteristics, such as personality, psychological type, or learning style, intersect with external conditions like classroom methodology or sociocultural identity. Thus, understanding what influences the use of LLSs requires not only an examination of demographic and educational variables but also a deeper exploration of the cognitive, emotional, and contextual dimensions that define each learner's trajectory.

In what follows, the chapter examines the principal factors identified in the literature as shaping learners' strategy use, namely age, gender, proficiency level, personality, motivation, self-efficacy, teaching approach, and cultural background, highlighting both converging trends and unresolved tensions in current research.

To begin with, age has often been regarded as a relevant factor in L2 acquisition, based on the assumption that developmental and cognitive differences shape learners' approach to language learning. Yet this assumption has been called into question by Willing's (1988) large-scale study on adult immigrant learners in Australia, which found that style preferences and strategy use remained largely constant across different age groups. Such conflicting findings suggest that age may not act as an independent determinant but rather interact with other dimensions, such as learning context or educational background, which mediate its effects on strategy deployment.

Turning to gender, research has produced equally mixed empirical results. Early studies by Ehrman and Oxford (1989), and Oxford and Nyikos (1989) identified notable gender-related differences in strategy use, reporting that female learners tended to use a broader range of strategies, especially social and affective ones. These results were later supported by Green and Oxford (1995). However, in a follow-up investigation, Ehrman and Oxford (1990) found no statistically significant differences in LLS use between males and females, thus complicating the initial narrative. Further contributions by Gu (2002) and Sunderland (2000) propose that gender differences in strategy use may be mediated by motivational factors, with females typically exhibiting higher levels of motivation towards language learning, a variable that may indirectly influence the range and intensity of strategy deployment. These observations point to the importance of considering motivational dispositions alongside demographic descriptors.

As far as personality and psychological type are concerned, research, particularly that grounded in typologies like Myers-Briggs Type Indicator (MBTI), has explored how traits influence learners' strategic behaviour. Ehrman and Oxford (1989, 1990) emphasise that the relationship between personality type and LLS use is not always linear or predictable, yet psychological preferences do appear to shape how learners engage with language tasks. Extroverted learners, for instance, may gravitate towards interactive and social strategies, whereas introverts may favour cognitive or metacognitive techniques that require individual reflection and planning. Although personality alone does not determine strategy use, it represents a meaningful variable that intersects with others in influencing how strategies are selected and applied.

Among the most widely acknowledged determinants of strategy use is motivation. The influential study by Oxford and Nykos (1989), involving over 1,200 university students, found motivation to be the single most significant factor affecting learners' strategic choices. Motivation itself is a multifaceted construct, shaped by variables such as career goals (Ehrman & Oxford, 1989), instrumental or integrative orientations (Gardner et al., 1997), and learners' evolving perceptions and self-concepts

(Dörnyei & Otto, 1998). Within this framework, perceived self-efficacy, defined as learners' beliefs in their ability to succeed in a particular task, emerges as a pivotal subcomponent. Bandura (1993, 1995) has shown that self-efficacy influences not only which strategies are chosen but also whether learners persist in using them when faced with difficulty. In a similar vein, Chamot and Harris (2019) argue that motivation and self-efficacy are not only outcomes of achievement but are also shaped by feedback received during the learning process. This reciprocal dynamic reinforces the relevance of affective and social elements in shaping learners' strategic repertoires.

In expanding the motivational framework, Oxford (2016) draws connections between LLS use and broader constructs such as self-regulation, agency, resilience, and growth mindset. These psychological attributes empower learners to take ownership of their learning processes, enabling them to adapt strategies to meet varying demands. As such, motivation and strategy use are engaged in a mutually reinforcing relationship, where strategic competence feeds into motivational resilience, and vice versa (Oxford, 2003, 2008, 2016).

Another important variable is the match, or mismatch, between learners' individual learning styles and the instructional context in which they operate. Cohen (1990) stresses that pedagogical methods may fail to be effective when they do not align with learners' developmental profiles or preferred cognitive styles. In classrooms dominated by traditional, teacher-centred approaches, learners often resort to memory-based or form-focused cognitive strategies. Conversely, those immersed in communicative or task-based learning environments are more likely to develop metacognitive, social, or compensation strategies that support negotiation of meaning and authentic interaction. This suggests that instruction not only delivers content but also plays a formative role in shaping learners' strategic habits.

Language proficiency and achievement levels have also been consistently linked to strategy use. In her study of 348 language learners in a New Zealand school, Griffiths (2003) found that advanced students reported more frequent and diverse strategy use,

particularly in areas such as vocabulary learning, interactive skills, ambiguity tolerance, and emotional regulation. These findings suggest that as learners progress in proficiency, their strategic repertoires become more sophisticated and varied. This developmental trajectory supports the notion that achievement is both a consequence and a catalyst of strategic engagement: proficient learners draw on more effective strategies, and the successful use of such strategies, in turn, promotes further achievement.

Learner's nationality and cultural background can also shape their strategy use, although findings in this domain are often incidental or inconsistent. For instance, Politzer and McGroarty (1985) reported that Hispanic learners used a wider variety of effective strategies compared to Asian peers. Similarly, O'Malley (1987) noted that Asian students' tendency to rely on familiar, often rote-based strategies may limit their adaptability and, by extension, their success. Griffiths and Parr (2000) found that European learners reported significantly higher use of strategies across domains such as vocabulary learning, reading comprehension, and social communication. However, Willing (1988) cautioned against overgeneralising these trends, noting that the influence of cultural background is often mediated by context-specific factors. Isolating cultural variables in LLS research thus remains an ongoing methodological challenge.

Finally, a sociocultural perspective invites a rethinking of strategic behaviour beyond the boundaries of the individual learner. Norton (2013) critiques traditional cognitive and motivational models for failing to consider the unequal power dynamics that characterise many L2 learning situations. Her concept of investment addresses the ways in which learners' identities are shaped by and negotiated within target-language communities. From this vantage point, strategy use is not merely a function of personal agency or aptitude, but it is also conditioned by questions of legitimacy, access, and belonging. Learners may adjust or suppress their strategic behaviour depending on how they perceive their position within the social landscape of language learning. This broader lens complicates reductive psychological accounts of strategy use, underscoring

the importance of identity, context, and learner agency in any comprehensive understanding of LLS deployment.

In conclusion, the use of LLSs emerges as a dynamic and multidimensional phenomenon shaped by a constellation of internal traits and external circumstances. While personal variables such as age, gender, personality, motivation, and proficiency undoubtedly play a role, they interact with instructional practices, sociocultural contexts, and identity-related dynamics in complex ways. Recognising these influences is vital not only for interpreting individual differences in strategy use but also for designing effective, inclusive, and context-sensitive strategy instruction that responds to the diverse realities of language learners.

1.6 Investigating language learning strategies: the SILL and *Language Strategy Use Survey* by Oxford, Cohen, and Chi

The *Strategy Inventory for Language Learning* (SILL) is among the most widely used and validated tools in the field of language learning research. Developed by Oxford, the instrument was initially conceived in the mid-1980s as part of a project funded by the U.S. Army Research Institute. The original study, *Development and Psychometric Testing of the Strategy Inventory for Language Learning* (SILL) (Oxford, 1986), laid the empirical foundation for the inventory. It involved large-scale piloting and rigorous statistical analyses, assessing the reliability, internal consistency, and factor structure of the instrument. Oxford (1986) described SILL as "a structured interview format and self-scoring paper-and-pencil device" (p.1), designed to systematically capture the frequency of learners' strategy use across a broad spectrum of individual differences, including gender, proficiency level, and learning context. Oxford's later work (1990) expanded on these foundations, integrating the SILL into a more comprehensive theoretical framework. In *Language Learning Strategies: What Every Teacher Should Know*, she aligns the instrument explicitly with her six-part taxonomy strategies: memory, cognitive, compensation, metacognitive, affective, and social. Two distinct versions of the SILL were developed: Version 5.1 for native English speakers

learning a foreign language, and Version 7.0 for learners of English as a L2 or FL. These inventories contain 50 items (in Version 7.0), each rated on a five-point Likert scale, where learners indicate how frequently they use specific strategies, allowing for a nuanced representation of individual strategic behaviour. The scale points are labelled as follows:

1. = “Never or almost never true of me”
2. = “Usually not true of me”
3. = “Somewhat true of me”
4. = “Usually true of me”
5. = “Always or almost always true of me”.

This format enables researchers to quantify learners’ reported strategy use and to link such behaviours to theoretical categories and learner variables.

Another important instrument developed within the same theoretical framework is the *Language Strategy Use Survey*, created in 2002 by Oxford, Cohen, and Chi at the University of Minnesota’s Center for Advanced Research on Language Acquisition (CARLA). This questionnaire, unlike the SILL, was developed as part of a study on learning strategies in immersion and study abroad contexts. It focuses on helping learners become more aware of their strategy use through a structured, skill-based inventory that aligns with Oxford’s six-strategy taxonomy but organises items by language skill areas: listening, speaking, reading, writing, vocabulary, and translation. This alternative structure reflects a practical orientation, enabling learners to reflect on their strategic behaviour in relation to distinct communicative and academic tasks. *The Language Strategy Use Survey* presents 90 items written in simplified, concrete terms, making it accessible to a broad range of learners, including those at early stages of proficiency. Each section begins with a short explanatory note introducing the specific skill domain and helping learners frame their reflection on strategy use. Items are organised around observable behaviours and situationally grounded activities. For example, in the vocabulary section, strategies might include “I use word cards to remember new words” or “I say new words aloud to help remember them”, which correspond to memory or cognitive strategies in Oxford’s taxonomy. Instead of a

traditional Likert scale, the instrument employs a three-point response format designed to differentiate levels of familiarity and engagement with each strategy:

1. “I use this strategy and find it useful”,
2. “I have tried this strategy but would like to explore it more”,
3. “I have never tried this strategy”.

This format facilitates learner reflection and offers researchers insight not only into frequency but also into learners’ exploratory or emergent use of strategies. Although the survey draws upon the full range of Oxford’s (1990) strategy types, affective strategies are notably absent from the instrument. This omission is consistent with the original version developed by Oxford, Cohen, and Chi, who chose to exclude this category. One possible rationale lies in the challenges associated with operationalising affective strategies through self-report instruments, particularly for learners who may not yet possess the introspective or emotional vocabulary needed to evaluate such strategies accurately. This design choice does not undermine the theoretical validity of the instrument, as the remaining five categories, namely memory, cognitive, metacognitive, compensation, and social strategies, still provide a comprehensive and balanced overview of learner behaviour across skill domains. Importantly, while the SILL presents strategy types in grouped clusters according to Oxford’s taxonomy, the *Language Strategy Use Survey* implicitly embeds these same strategy types within each skill-based section. For instance, memory strategies may be found in the vocabulary section, metacognitive strategies in reading and writing, and social strategies in speaking or translation. This organisational structure offers a dual benefit: it remains theoretically grounded while also supporting practical application and learner comprehension.

In sum, both the SILL and the *Language Strategy Use Survey* reflect a shared theoretical foundation rooted in Oxford’s (1990) taxonomy of LLSs. However, they differ in terms of structure, purpose, and learner orientation. The SILL provides a standardised, psychometrically validated framework for advanced learner and research populations, so much so that it has been described as “without doubt the most widely used instrument in language learning strategy research” (White, Schramm, & Chamot, 2007, p. 99). However, despite its widespread use, the SILL has faced increasing

scrutiny in recent years regarding its suitability across diverse learner populations. Amerstorfer (2018), in her critical examination titled '*Past its expiry date? The SILL in modern mixed-methods strategy research'*, highlights the challenges of applying the instrument unchanged to younger or less proficient learners. These critiques emphasise the necessity for adaptation to better accommodate learners with varying cognitive, linguistic, and developmental characteristics. In this context, alternative tools such as the *Language Strategy Use Survey* (Oxford, Cohen, & Chi, 2002) have been developed to address these limitations by offering a more flexible, skill-based framework that is better aligned with the needs of less experienced or younger learners.

Chapter 2: The Concept of Self-Efficacy in Learning

This chapter explores the construct of self-efficacy and its theoretical and empirical significance in educational psychology, with a particular focus on language learning. It begins by outlining the definition and theoretical underpinnings of the concept within Bandura's Social Cognitive Theory (Section 2.1), clarifying its distinguishing features and its relation to similar constructs such as self-esteem, outcome expectancy, and locus of control. Particular attention is given to the four main sources of self-efficacy, as originally identified by Bandura, and to their role in shaping individuals' beliefs in their own capabilities. Section 2.2 investigates how self-efficacy influences learners' cognitive, motivational, and affective processes, with an emphasis on its role in goal setting, persistence, self-regulation, and emotional resilience. Finally, Section 2.3 focuses on the role of self-efficacy in the context of SLA, examining how efficacy beliefs impact skill-specific performance (speaking, listening, reading, and writing), reduce anxiety, promote learner autonomy, and foster communicative engagement. Throughout the chapter, self-efficacy is presented as a dynamic and context-sensitive construct, crucial for understanding learners' behaviour and outcomes across diverse educational and linguistic domains.

2.1. Definition and theoretical foundations

Within the framework of Bandura's Social Cognitive Theory (hereafter SCT), self-efficacy is defined as "the belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (1997, p. 3). This concept centers on an individual's perceived ability to successfully perform specific tasks, distinguishing it from objective measures of competence or intelligence. Self-efficacy influences not only what goals individuals set but also their level of commitment, resilience in the face of obstacles, and overall behaviour regulation in pursuit of those goals (Bandura, 1997). In other words, it acts as a pivotal cognitive mechanism mediating how learners engage with challenges, manage motivation, and ultimately

succeed in learning contexts. Importantly, Bandura (1997) emphasised that self-efficacy is not "a fixed ability that one does or does not have in one's behavioural repertoire", nor a mere "collection of words or a colony of preformed sentences in a verbal repertoire." (1997, p.3). Instead, efficacy is defined as "a generative capability in which cognitive, social, emotional, and behavioural subskills must be organised and effectively orchestrated to serve innumerable purposes" (1997, pp. 36-37). This conceptualisation underscores the dynamic, developmental nature of self-efficacy, challenging any static or trait-like interpretations.

The introduction of self-efficacy in Bandura's groundbreaking 1977 article, '*Self-Efficacy: Towards a Unifying Theory of Behavioural Change'*, marked a significant departure from earlier behaviourist models of learning that conceptualised human action primarily as a conditioned response to stimuli. Traditional behaviourism, championed by theorists such as Watson (1913), Thorndike (1911), and Skinner (1953), viewed learning chiefly as a process of stimulus-response associations shaped by reinforcement schedules. Although influential, these models faced criticism for their inability to account for the complex cognitive, motivational, and affective processes that shape human agency (Bandura, 1977, 1986; Zimmerman & Schunk, 2003). Bandura (1977) challenged this reductionist perspective by emphasising the role of cognitive appraisal in behavioural regulation. He proposed that individuals are active people who "not only gain understanding through reflection, they evaluate and alter their own thinking", rather than being passive responders to environmental stimuli (Bandura, 1989, p. 58).

Central to Bandura's conceptualisation of self-efficacy within his broader SCT is the theory of reciprocal determinism, asserting that human behaviour is governed by triadic reciprocal causation, a dynamic interplay among personal factors (including cognition, affect, and biology), behavioural patterns, and environmental influences (Bandura, 1986). SCT thus expands the focus beyond stimulus-response conditioning to include cognitive processes such as attention, retention, motor reproduction, and motivation (Bandura & Walters, 1963). It asserts that learning occurs in a social context and is influenced not only by reinforcement but also by the observation of others, the construction of meaning, and the regulation of one's own consequent actions (Bandura,

1989). Individuals are thus viewed as agents of change, capable of forethought, intentionality, and self-reflection, dimensions largely absent in behavioural paradigms (Bandura, 1986; 1997). Self-efficacy beliefs, in this model, are fundamental determinants of human functioning because they influence the goals individuals set, the amount of effort they expend, their persistence in the face of difficulties, and their vulnerability to stress and depression (Bandura, 1997). As previously noted, Bandura repeatedly rejected the notion of self-efficacy as a fixed trait or a mere function of ability (Bandura, 1984, 1995a, 1995b). In *Self-Efficacy: The Exercise of Control*, he clarified that "perceived self-efficacy is not a measure of the skills one has but a belief about what one can do under different sets of conditions with whatever skills one possesses" (1997, p. 37). This distinction is crucial, as it reveals how individuals with similar competencies may perform very differently depending on the strength of their efficacy beliefs.

To further clarify the construct of self-efficacy, it is important to distinguish it from several related but conceptually distinct constructs frequently encountered in psychological and educational research. Self-esteem, for instance, refers to a generalised feeling of self-worth or global self-evaluation, or as Rosenberg defines it, to "the totality of our thoughts and feelings with reference to ourselves as an object" (Rosenberg, 1965). Unlike self-efficacy, which is task-specific and predictive of motivation and behaviour in particular domains, (Bandura, 1997) self-esteem reflects an overall evaluative judgement about oneself's worth (Battistelli, 1994), yet it does not affect neither personal goals nor performance (Mone, Baker & Jeffries, 1995). Outcome expectancy, another related concept, pertains to an individual's belief that certain behaviours will lead to particular outcomes (Rotter, 1966, p. 3). However, outcome expectancy does not specify whether the person believes they possess the capability to perform those behaviours successfully (Rotter, 1966, p. 8). For example, a learner may believe that practising speaking will improve their language skills (positive outcome expectancy) but may simultaneously doubt their ability to perform the practice effectively (low self-efficacy). Locus of control, originally conceptualised by Rotter (1966) and further elaborated by Weiner (1985) within attribution theory, refers to the

perceived source of control over events in one's life. An internal locus of control implies that outcomes are contingent on one's own behaviours, whereas an external locus attributes results to luck, fate, or other external factors (Weiner, 1985). While locus of control and self-efficacy are related in that both concern perceptions of control, the key distinction lies in their focus: locus of control addresses whether outcomes are perceived as controllable, whereas self-efficacy concerns whether the individual believes they can effectively execute the behaviours required to achieve desired outcomes (Bandura, 1997), and can predict improvements in academic performance or reductions in anxiety (Smith, 1989). Weiner's (1985) work further illuminated how individuals' attributional style, particularly the stability, controllability, and locus of causal attributions, influences future motivation. Nonetheless, these attributional tendencies remain distinct from the confidence in one's executional capability that self-efficacy entails.

Bandura identified four primary sources from which individuals derive their self-efficacy beliefs: mastery experiences, vicarious experiences, verbal persuasion, and physiological and affectional states (Bandura, 1997).

Of these, mastery experiences, personal success in performing a task, are the most potent influence on efficacy beliefs (Bandura, 1997). Successful task completion provides direct evidence that one possesses the necessary skills, bolstering confidence and fostering resilience when future challenges arise. Conversely, repeated failure can undermine self-efficacy, especially if attributed to stable, internal factors (Bandura, 1997). In the longitudinal study conducted by Bandura and Zimmerman (1994), mastery experiences were shown to significantly predict the development of academic self-regulation in adolescents, demonstrating how students' beliefs about their learning capabilities translated into concrete self-managed learning behaviours.

Vicarious experiences, or modeling, represent the process of observing others performing tasks successfully. Seeing similar others succeed can strengthen an observer's belief that they too possess the capability to succeed, especially when direct

mastery experiences are limited or absent (Bandura, 1997). This mechanism highlights the social nature of learning and efficacy development, as learners often gauge their own abilities relative to peers or role models (Schunk, 1987). In classroom contexts, for instance, observing a peer overcome difficulty in reading comprehension can enhance an observing student's belief in their own reading efficacy, particularly if they identify with the model in terms of ability or background.

Verbal persuasion involves receiving encouragement, positive feedback, or constructive criticism from significant others such as teachers, peers, or mentors (Bandura, 1997). While less influential than mastery experiences, verbal persuasion can nonetheless enhance self-efficacy by persuading individuals that they possess the necessary skills and can overcome obstacles, particularly when combined with supportive instructional practices (Pajares, 1996). Effective feedback that focuses on effort, strategies, and improvement, rather than innate ability, has been shown to foster adaptive self-efficacy beliefs and persistence (Bandura, 1997).

Finally, physiological and affectional states also inform self-efficacy judgments. Stress, anxiety, fatigue or mood fluctuations can serve as internal cues that learners interpret as signs of vulnerability or readiness. For instance, heightened anxiety may be construed as a lack of capability, diminishing efficacy beliefs, whereas calm and focused physiological states reducing reactions as stress and negative emotions have an impact on one's self-efficacy perception (Bandura, 1994, 1997). This source underscores the embodied, affective dimension of self-efficacy and suggests that interventions targeting emotional regulation may indirectly enhance learners' perceived self-capabilities. Studies on test anxiety (Pekrun et al., 2002) have confirmed that physiological arousal interpreted negatively correlates with lowered academic efficacy, while mindfulness and relaxation techniques have been associated with improved efficacy beliefs and performance.

Together, these sources interact dynamically to shape an individual's self-efficacy profile, which in turn influences motivation, learning strategy choice, and

academic achievement (Zimmerman, 2000). The theoretical richness and empirical support for Bandura's SCT have established self-efficacy as a foundational construct in understanding human agency in diverse educational settings, including SLA.

2.2 Self-efficacy and cognitive, motivational, affective processes

Self-efficacy beliefs, as conceptualised in Bandura's (1977, 1986) SCT, exert a pervasive influence on multiple domains of human functioning. These beliefs do not operate in a vacuum; rather, they shape and are shaped by a dynamic interplay of cognitive, motivational, and affective processes. After clarifying the theoretical foundations of self-efficacy in 2.1, it becomes crucial to explore how this construct mediates the ways individuals process information, regulate their motivation, and cope with emotional challenges, three pillars of SRL (Zimmerman, 2000) and academic success.

From a cognitive perspective, self-efficacy affects the learner's capacity to process information strategically to plan and organise their actions, and to engage in higher-order thinking skills. As Bandura explains:

> Most courses of action are initially organized in thought. People's beliefs in their efficacy shape the types of anticipatory scenarios they construct and rehearse. Those who have a high sense of efficacy visualize success scenarios that provide positive guides and supports for performance (Bandura, 1995a, p. 6).

This forward-oriented mindset fosters strategic behaviours such as setting specific goals, using metacognitive monitoring, and adapting learning techniques when difficulties arise (Zimmerman, 1990; Schunk & Zimmerman, 2007). For instance, students who believe in their ability to learn a complex concept are more likely to persevere in their efforts, experiment with new strategies, and reflect on their progress. Bandura (1995a) provides a concise summary of how efficacy beliefs influence action: "They determine the goals people set for themselves, how much effort they expend,

how long they persevere in the face of difficulties, and their resilience to failures" (p. 8). In this way, self-efficacy emerges not as a static perception, but as a dynamic force that continuously shapes and reshapes cognitive engagement and learning regulation. Conversely, low self-efficacy leads to avoidance behaviours, superficial processing, and rapid disengagement from cognitively demanding tasks (Pajares, 1996a), reducing opportunities for deep learning and self-refinement.

In the motivational domain, self-efficacy plays a fundamental role in shaping learners' beliefs about control, competence, and achievement. According to Bandura (1997), motivation is largely rooted in the conviction that one can influence their own performance. He asserts that "the stronger the perceived self-efficacy, the higher the goal challenges people set for themselves and the firmer is their commitment to them" (Bandura, 1994, p. 3). In educational settings, this means that students with strong self-efficacy are more likely to adopt mastery-oriented goals, to maintain sustained attention over time, and to display high levels of persistence and effort (Pintrich & De Groot, 1990; Schunk & Pajares, 2002). Furthermore, self-efficacy beliefs affect how individuals interpret success and failure.

Drawing from Weiner's (1986) attribution theory, it has been shown that students with high self-efficacy are more likely to attribute success to internal and controllable factors, such as effort or the use of effective strategies, and failure to temporary or external causes. This attributional style reinforces a sense of agency and encourages future engagement. By contrast, learners with low self-efficacy may develop maladaptive motivational patterns, such as learned helplessness, reduced goal orientation, and reliance on avoidance tactics, which in turn comprise academic outcomes (Dweck & Leggett, 1988; Eccles & Wigfield, 2002).

Moreover, as Zimmerman observes (1995a), the motivational effects of efficacy beliefs are not confined to a single learning episode "but extend to other tasks in the same context" (p. 206). This suggests that when students develop a strong sense of efficacy in a particular domain, such as solving math problems or writing in a L2, this

confidence can generalise, enhancing their motivation to approach similar challenges with increased initiative and reduced apprehension. In addition to guiding effort and persistence, self-efficacy exerts a long-term influence on learners' academic growth by shaping their active engagement with learning tasks. According to Zimmerman (1995a), "because perceived self-efficacy fosters engagement in learning activities that promote the development of educational competencies, such beliefs affect level of achievement as well as motivation" (p. 208). This observation reinforces the idea that efficacy beliefs function both as predictors and as facilitators of academic success, through a virtuous cycle of strategic involvement and competence development.

The affective dimension of self-efficacy is equally significant, as it encompasses learners' emotional reactions to academic demands and their ability to regulate these emotions adaptively. Students who believe they can cope with academic tasks tend to approach them with greater confidence and emotional stability. They experience less anxiety, greater frustration tolerance, and enhanced emotional resilience; as Bandura (1994) explains, "after people become convinced they have what it takes to succeed, they persevere in the face of adversity and quickly rebound from setbacks" (p. 2; see also Pajares, 2001). Self-efficacy, in this regard, functions as a buffer against negative emotional states. As Bandura further observes, "efficacy beliefs influence how much stress and depression people experience in threatening or difficult situations, as well as their level of motivation" (p. 5). Affective regulation is crucial in learning environments that require sustained attention, error tolerance, and social interaction. For example, in language learning contexts, students with high self-efficacy may interpret a speaking error as an opportunity for growth, whereas those with low self-efficacy might perceive the same event as a threat to their self-worth, leading to withdrawal or performance anxiety (MacIntyre & Gardner, 1991b). This affective fragility can reduce learners' willingness to communicate and hinder their engagement in collaborative or oral activities.

Importantly, these three domains, cognitive, motivational, and affective, are not discrete, but interdependent and mutually reinforcing. Strong efficacy beliefs enhance

the use of effective cognitive strategies, which in turn can result in positive learning outcomes, bolstering motivation and emotional resilience (Schunk & Zimmerman, 2007). Similarly, motivational commitment increases cognitive engagement, while affective regulation creates the emotional space necessary for strategic thinking and perseverance. As Bandura (1986) argued in his triadic model of reciprocal determinism, personal, behavioural, and environmental influences interact dynamically to shape human functioning.

In conclusion, self-efficacy is not merely a belief about one's capabilities; it is a dynamic, multifaceted construct that shapes how individuals think, feel, and act in academic contexts. Through its cognitive, motivational, and affective dimensions, self-efficacy influences learners' strategic behaviour, goal orientation, and emotional well-being, making it a pivotal factor in both theoretical models and practical approaches to educational psychology. Understanding these interrelations is particularly relevant in applied research, as it lays the groundwork for interventions aimed at enhancing learner autonomy, persistence, and emotional competence. Because language learning demands the integration of cognitive strategies, sustained motivation, and emotional regulation, self-efficacy plays a key role in determining success in this domain. These implications will be examined in more detail in the next section.

2.3 Self-efficacy in language learning

While self-efficacy has been widely studied across educational domains, its application to L2 learning presents unique theoretical and pedagogical implications. Acquiring a new language entails a complex interplay of cognitive skills, sustained effort, and high levels of emotional engagement, conditions under which learners' beliefs about their own capabilities can profoundly shape outcomes. As Bandura (1997) argued, self-efficacy beliefs are predictive not only of performance but of the ways individuals initiate action, persist in difficulty, and recover from setbacks. Within the L2 context, these beliefs become particularly salient: students are frequently required to perform under pressure, to take interpersonal risks, and to sustain motivation in

long-term learning trajectories. Thus, understanding self-efficacy in language learning entails examining how these beliefs influence learners' interaction with the specific demands of linguistic tasks.

One of the most direct applications of self-efficacy in SLA lies in learners' beliefs about their ability to perform specific language skills. A growing body of research has explored how self-efficacy perceptions regarding speaking, listening, reading, and writing relate to L2 performance. These beliefs are often skill-specific and asymmetrical: a learner may feel confident in reading but uncertain in oral production, which reflects the inherently dynamic and context-sensitive nature of self-efficacy: beliefs fluctuate depending on task type, social context, and previous success or failure, particularly in language classrooms where performance is often public and immediate (Bandura, 1997; Usher & Pajares, 2008).

In the domain of speaking, where anxiety and fear of public failure are especially pronounced, self-efficacy has been shown to correlate strongly with fluency, willingness to participate, and oral accuracy. Mills and Pajares (2006) found that students with higher speaking self-efficacy in French as a FL were more likely to engage in spontaneous conversation and scored significantly higher on speaking assessments. Similar findings emerged in a study by Raoofi et al. (2012), where speaking self-efficacy predicted both classroom participation and the use of interactional strategies.

In listening, a skill often perceived as passive but cognitively demanding, self-efficacy supports the learner's confidence in decoding meaning under time constraints. Research by Rahimi and Abedini (2009) showed that listening self-efficacy significantly predicted performance on L2 comprehension tasks, as learners with higher beliefs were more likely to engage actively in top-down and bottom-up processing.

In the area of reading, self-efficacy correlates with both comprehension and strategic processing. In their study on Iranian EFL learners, Naseri and Zaferanieh

(2012) demonstrated that students with higher self-efficacy beliefs in reading tended to make greater use of cognitive and metacognitive strategies, such as inference and summarising, which in turn led to improved levels of reading comprehension.

Writing self-efficacy, meanwhile, has been shown to impact textual organisation, lexical variety, and revision behaviours. Teng, Sun, and Xu (2018), in a study of Chinese university students, found that learners with stronger writing self-efficacy engaged more frequently in planning and reviewing their texts leading to higher overall quality. These findings echo Zimmerman's (1995a) conceptualisation of self-efficacy as a self-regulatory mechanism that enables learners to monitor their progress and adjust their learning approach in response to perceived performance. Importantly, some studies highlight the predictive value of writing self-efficacy. For example, Pajares and Valiante (1997) found that writing self-efficacy was the strongest motivational predictor of writing competence among upper-elementary students, even after accounting for other factors such as writing self-concept and prior achievement. This suggests that writing self-efficacy captures more than current ability, potentially supporting long-term development in L2 writing.

Furthermore, the relationship between self-efficacy and foreign language anxiety (FLA) deserves closer attention. Self-efficacy and FLA appear to be reciprocally influential: learners with low self-efficacy often report higher levels of anxiety, while heightened anxiety, in turn, can diminish one's confidence in performing language tasks (MacIntyre & Gardner, 1991a). This bidirectional link indicates that fostering self-efficacy may serve as an effective means of reducing anxiety and promoting a more positive affective climate in the classroom. This is particularly relevant in L2 environments, where anxiety can be triggered not only by fear of error but also by social evaluation and identity exposure, factors that directly challenge one's perceived linguistic competence (MacIntyre, 2007). Supporting this, Mills, Pajares, and Herron (2006) found that higher levels of self-efficacy in reading and listening were significantly associated with lower levels of FLA and better language performance, particularly among female students. These findings highlight the potential of

self-efficacy to buffer the negative emotional impact of language learning, fostering a more resilient and confident learner profile.

Beyond performance outcomes, self-efficacy significantly influences learners' communicative behaviour, how they choose to engage (or not) with the target language in real contexts. Among the clearest behavioural outcomes is learner autonomy, commonly defined as "the ability to take charge of one's own learning" (Holec, 1981, p. 3), and strongly linked to perceptions of personal control over learning. Students who believe they can influence their progress are more inclined to take initiative: they seek out opportunities for practice, expose themselves to authentic input, and manage their learning goals with greater independence. As Little (2007) argues, autonomy in language learning is not simply behavioural but self-driven, underpinned by a learner's sense of competence and agency, concepts central to Bandura's self-efficacy theory.

Closely related is the construct of Willingness to Communicate (WTC), defined by MacIntyre, Clément, Dörnyei, and Noels (1998) as "the readiness to enter into discourse at a particular time with a specific person or persons, using a L2" (P. 547). Their model, structured hierarchically, positions self-confidence, including self-efficacy, as a proximal antecedent of WTC. In this framework, a learner who believes in their communicative ability is more likely to speak when the opportunity arises, even in anxiety-inducing or unpredictable environments. Subsequent empirical studies (e.g., Yashima, 2002; Khajavy et al., 2016) have validated the predictive role of perceived communicative competence in learners' WTC, particularly in settings where classroom interaction and peer dynamics play a central role. Furthermore, self-efficacy may foster risk-taking behaviour, which is essential for language development but often inhibited by fear of error or embarrassment. Learners with high self-efficacy tend to interpret mistakes as part of the learning process rather than as personal failures, a mindset that aligns with Bandura's (1997) emphasis on efficacy as a resilience-enhancing belief. This orientation can lead learners to volunteer answers, initiate conversation, or experiment with new structures, all of which are critical behaviours for language acquisition.

While language performance and communicative engagement are visible manifestations of self-efficacy, a third crucial area is its role in learner's preparatory behaviour, particularly the use of learning strategies. Although this theme will be explored more deeply in Chapter 3, it is important to note here that self-efficacy operates as a motivational foundation for strategy use. As Zimmerman and Martinez-Pons (1988) observed, learners with strong self-efficacy beliefs tend to employ a wider range of SRL strategies, including goal-setting, rehearsal, and self-monitoring.

What distinguishes high-efficacy learners is not merely their use of strategies, but their confidence in the strategies' effectiveness and their belief in their own ability to deploy them appropriately. This internalised sense of control encourages persistence, even when initial results are discouraging. In contrast, learners with low self-efficacy may abandon strategies prematurely, or may not attempt them at all, due to a perceived lack of competence.

In sum, self-efficacy is a central construct in understanding how learners approach, experience, and succeed in language learning. It affects not only skill-specific performance, but also the affective and behavioural dimensions that sustain long-term engagement. Learners with strong self-efficacy beliefs are more autonomous, more communicative, and more willing to take risks, characteristics that are especially valuable in the language classroom and beyond. Furthermore, their sense of capability often translates into more strategic and SRL practices. Given that self-efficacy exerts such a profound influence on learners' cognitive and behavioural engagement, it is unsurprising that researchers have begun to explore its potential relationship with LLSs. The following chapter will examine this interaction more closely.

Chapter 3: Interaction Between Language Learning Strategies and Self-Efficacy

Chapter 3 integrates theoretical and empirical insights on the interplay between LLSs and self-efficacy, providing the foundation for the present study. Section 3.1 examines how learners' self-efficacy may shape the selection, frequency, and effectiveness of strategy use across language skills, drawing on Bandura's (1977, 1986, 1994) framework and Oxford's (1990) taxonomy. It also reviews empirical studies, highlighting convergences, divergences, and which strategy types and skill domains are most consistently associated with higher self-efficacy. Building on this, Section 3.2 identifies unresolved questions and methodological limitations, particularly the lack of analysis considering both macro areas and specific strategy types, and the underexplored predictive role of self-efficacy across different skills. By delineating these gaps, Section 3.2 justifies the present study's aim to examine how self-efficacy interacts with LLSs in the four language skills (listening, reading, writing, speaking), thereby extending theoretical and empirical understanding of this relationship.

3.1 Theoretical assumptions and previous studies on the correlation between LLSs and self-efficacy

The idea that self-efficacy and the use of LLSs may be interrelated has gained increasing recognition in the field of SLA. This theoretical assumption is primarily grounded in Bandura's SCT (1977, 1997, see 2.1), which conceptualises self-efficacy as individuals' judgments about their capability to organise and execute actions required to attain specific goals. According to Bandura (1994), such beliefs are domain- and task-specific and play a central role in influencing behaviour: learners with higher self-efficacy are more likely to engage in tasks, persevere in the face of challenges, regulate their emotional states, and recover from setbacks. In the domain of language learning, these mechanisms are particularly relevant, as L2 development involves

prolonged effort, complex task demands, and often, social exposure. It therefore appears plausible to hypothesise that learners who hold a strong belief in their ability to succeed in language tasks would also be more inclined to select and employ strategies aimed at facilitating successful performance.

Oxford (1990, 2016), whose taxonomy of LLSs remains one of the most comprehensive and widely cited in the literature, offers further theoretical grounding for the connection between strategy use and self-efficacy. Learners with strong self-efficacy beliefs tend to be more proactive in managing their learning. As Oxford (2016) explains, "proactive self-regulators maintain self-efficacy beliefs (perceived competence) and establish a productive learning environment" (p. 71), often employing metacognitive strategies like planning, monitoring, and evaluating. Moreover, she emphasises that "appropriate strategies can enhance self-efficacy by improving success on tasks" (p. 43), suggesting a dynamic interplay between strategic behaviour and motivational beliefs.

This reciprocal relationship is further supported by Zimmerman and Schunk's (2011) model of SRL, which places self-efficacy at the centre of goal-directed behaviour. Their model suggests that learners with higher self-efficacy are more likely to set specific learning goals, adopt and transfer effective strategies, monitor their progress, and persist through difficulties. This aligns with early findings by Zimmerman and Pons (1986), who observed that students with higher self-efficacy levels more frequently employed a variety of cognitive and metacognitive strategies in learning tasks. Oxford (2016) elaborates that strategic, self-regulated learners typically exhibit high levels of self-efficacy and other strength factors, such as resilience, hope, and internal attributions for success, which collectively influence how learners interpret and respond to learning experiences (pp. 84-85). These beliefs, both implicit and explicit, shape strategic behaviour and are often associated with greater persistence, increased interest in tasks, and more autonomous learning choices (Oxford, 2016; Pintrich & De Groot, 1990).

Within the framework of the Cognitive Academic Language Learning Approach (CALLA), Chamot and O'Malley (1994) also consider metacognitive and affective strategies as essential components of effective learning, particularly for learners who can self-regulate both cognitive and emotional aspects of performance. Their model posits that metacognitive awareness and affective control, such as managing anxiety or maintaining motivation, are closely tied to learners' beliefs about their capabilities, and therefore to self-efficacy.

Research by Chamot et. al (1996) further supports this assumption, showing that explicit strategy instruction can enhance both strategy use and self-efficacy, especially when learners are informed of the rationale behind strategy effectiveness.

An important element in understanding the interplay between LLSs and self-efficacy lies in the recognition that self-efficacy beliefs are not uniformly distributed across all language domains. Bandura (1994) and later Oxford (1996, 2016) emphasise the domain-specific nature of efficacy beliefs, meaning that learners may feel confident in one skill area (e.g., reading) but less so in another (e.g., speaking). This differentiation is critical, as it may directly influence the type and frequency of strategies employed in each skill. Oxford (1996) argues that different language tasks activate different clusters of strategies, and the degree of confidence learners have in performing those tasks is likely to modulate their strategic choices accordingly. For instance, a learner with high self-efficacy in listening may employ selective attention and inference strategies, while one with low speaking efficacy may avoid risk-taking or social interaction strategies. Moreover, as Oxford (2016) points out, the transferability and retention of strategies are often compromised by weak metacognitive awareness or low self-efficacy. Learners who do not believe in their ability to apply a strategy successfully are less likely to adopt or transfer it to new tasks, even when the strategy has proven useful in the past. This underscores the importance of motivational dimensions, particularly self-efficacy, in facilitating or hindering strategic behaviour.

In sum, theoretical contributions from Bandura (1997), Chamot and O'Malley (1994), and Zimmerman and Schunk (2011) converge in highlighting a reciprocal and

dynamic relationship between self-efficacy and the use of learning strategies. Learners with higher self-efficacy tend to engage in more frequent, varied, and autonomous use of strategies, particularly those of a metacognitive nature. At the same time, the successful use of these strategies reinforces learners' sense of competence, creating a positive feedback loop that supports long-term motivation and effective self-regulation. These theoretical insights provide a strong basis for exploring the empirical relationship between self-efficacy and LLSs, and help guide the interpretation of studies conducted in this area. Building upon these conceptual foundations, researchers have conducted numerous empirical investigations to test whether this bidirectional relationship holds true in real-world learning contexts.

Following the theoretical models outlined above, numerous empirical studies have investigated the relationship between self-efficacy and the use of LLSs across diverse linguistic and educational contexts. The findings emerging from this body of research tend to support the theoretical assumption that learners who possess high self-efficacy beliefs are more inclined to engage in a broader and more frequent use of strategies, particularly those that involve cognitive elaboration and metacognitive regulation. A clear pattern emerges in studies conducted in Iran, Chile, Malaysia, and other EFL contexts. Ahmadian and Ghasemi (2017), for instance, found that Iranian university students with stronger self-efficacy in reading reported significantly higher use of both cognitive and metacognitive strategies. Notably, self-efficacy emerged as a more powerful predictor of strategy use than students' profiles of multiple intelligence, underscoring the central motivational role of self-efficacy in guiding reflective and analytic behaviours. Further support for the positive association between self-efficacy and LLSs comes from Montaño-González and Cancino (2020), who studied Chilean EFL learners and found that higher self-efficacy was related to increased use of cognitive and metacognitive strategies across various language skills. Their findings suggest that learners' confidence tends to foster greater strategic engagement, although variations across strategy types and language domains require further investigation. In line with this interpretation, Abraha and Teka (2017) found that among EFL students at Bahir Dar University, use of LLSs, especially cognitive ones, was strongly correlated

with both self-efficacy and language achievement. Moreover, strategy use appeared to influence language performance more than self-efficacy alone, suggesting a central role for strategic engagement in academic success.

However, findings from other contexts point in a different direction. In a large-scale study conducted in Germany, Jaekel (2018) examined Year 9 students in both CLIL and traditional EFL classrooms and reported that, while there were no major differences in the frequency of strategy use between the groups, it was self-efficacy that emerged as the decisive predictor of language proficiency. This contrast highlights an important tension in the literature: whereas some evidence attributes greater explanatory power to the deployment of strategies, other studies indicate that learners' self-beliefs may directly shape performance outcomes, even when patterns of strategy use remain stable. Similarly, Pawlak and Csizèr (2021), in their large-scale study of European university students engaged in study abroad programmes, demonstrated that while most learners displayed motivation and reported strategic engagement, only about half combined high motivation with strong self-efficacy beliefs. Importantly, their analyses revealed that teacher-initiated strategy use could significantly shape learners' self-efficacy, although the effects varied across groups. These results point to a more complex dynamic in which external instructional support interacts with internal efficacy beliefs to condition the extent to which strategies actually facilitate language development. Nevertheless, it is worth noting that such investigations remain relatively scarce in the European context, suggesting a need for further research in this area.

The broader link between self-efficacy and strategy use is also supported by Wong (2005), whose study with Malaysian pre-service teachers showed that learners with stronger efficacy beliefs reported more frequent and varied use of learning strategies, even though no distinction was made between specific skills or strategy categories. Interestingly, large-scale research such as that conducted by Magogwe and Oliver (2007) in Botswana examined the relationship between LLSs, proficiency, age, and self-efficacy among university students. Their cross-sectional study revealed consistent positive associations between self-efficacy and strategy use across different age groups and proficiency levels, suggesting that the self-efficacy – LLS relationship is robust and observable across diverse learners profiles. Cross-cultural evidence from

Sardegna et al. (2018), together with findings from Yilmaz (2010) in the Turkish EFL context, confirmed this pattern, although the strength of the correlations varied depending on cultural and institutional variables. A number of studies also addressed strategy use in specific domains. Heidari, Iadi, and Vahed Ahmadian (2012), investigating vocabulary learning strategies among Iranian EFL learners, found that self-efficacy was a significant positive predictor of overall strategy use, with particularly strong associations observed for memory strategies. Their findings suggest that learners' confidence in their abilities may play a key role in motivating persistent efforts in vocabulary memorisation and retention. Similarly, Tauchid (2023) found that Indonesian EFL students with higher self-efficacy in speaking were more likely to use compensation and social strategies, indicating that self-efficacy may encourage learners to take communicative risks and seek assistance, especially in oral interaction.

Despite the predominance of positive correlations, some exceptions are worth noting. For instance, Mutly, Solhi, and Karacan (2019) reported no significant relationship between self-efficacy and the use of compensation strategies among Turkish EFL learners. Their findings suggest that certain strategy types, particularly those based on guessing or circumlocution, may operate independently of learners' confidence levels. This nuance is important, as it challenges the assumption that all forms of strategic behaviour are necessarily driven by self-efficacy beliefs.

Qualitative and mixed-methods studies also provide valuable insights. Wang and Pape's (2005) case studies of fifth-grade ESL learners in the United States revealed that students with higher task-specific self-efficacy in listening and speaking tasks were more likely to organise their environments, seek help, and use reviewing strategies. This further confirms the contextual and task-dependent nature of the self-efficacy – strategy relationship. Similarly, Zahidi and Ong (2023), through four case studies with adult ESL learners, explored how self-efficacy beliefs shaped the use of SRL strategies. Their findings showed that learners with higher self-efficacy tended to engage more actively in metacognitive planning, monitoring, and seeking social support, particularly in academic English contexts.

Finally, research using more sophisticated modeling techniques has further clarified the dynamics of this relationship. Cai and Zhao (2023), employing multilevel

structural equation modeling, demonstrated that the use of metacognitive strategies significantly contributed to enhancing self-efficacy, which in turn positively influenced language achievement. Their findings support a cyclical view, in line with Bandura and Zimmerman's theories, whereby self-efficacy and strategic behaviour reinforce each other over time. Complementing this perspective, Zarei and Gilanian (2014, 2015) showed that both cognitive self-regulation and the use of cognitive and affective LLSs are closely linked to higher levels of self-efficacy, suggesting that learners' beliefs in their capabilities facilitate more effective and emotionally balanced engagement in language learning.

Overall, the reviewed literature consistently highlights a strong and recurrent association between self-efficacy and the use of metacognitive strategies, such as planning, monitoring, and self-evaluation (e.g., Ahmadian & Ghasemi, 2017; Montaño-González & Cancino, 2020; Wong, 2005; Bonyadi, Nikour & Shahbaz, 2012; Abraha & Teka, 2017; Zahidi & Ong, 2023; Cai & Zhao, 2023). Learners with higher self-efficacy tend to engage in reflective and autonomous behaviours to regulate their learning processes, particularly in productive language tasks such as writing and speaking. By comparison, the correlation between self-efficacy and affective or compensation strategies appears weaker or more context-dependent (e.g., Montaño-González & Cancino, 2020; Mutlu, Solhi & Karacan, 2019). At the same time, the contrast between findings such as those of Abraha and Teka (2017), which emphasise the primacy of strategy use in predicting achievement, and Jaekel's (2018) results, which foreground self-efficacy as the strongest determinant of performance, reveals that the balance between strategic behaviour and efficacy beliefs may vary considerably across contexts. Moreover, evidence from Pawlak and Csizér (2021) indicates that pedagogical scaffolding through teacher-initiated strategy use can itself strengthen learners' efficacy beliefs, suggesting that the relationship is not only reciprocal but also susceptible to external intervention. These findings suggest that while self-efficacy can enhance learners' strategic engagement broadly, its influence is particularly robust when it comes to strategies involving self-regulation and goal-oriented learning management, especially metacognitive and cognitive ones,

though the dynamics of this relationship are shaped by contextual, cultural, and pedagogical variables.

3.2 Gaps in the literature and relevance of the present study

The synthesis of theoretical and empirical perspectives presented above reveals a well-established association between self-efficacy and the frequent use of metacognitive and cognitive strategies. However, it also brings to light several dimensions of the self-efficacy – strategy relationship that remain insufficiently explored, thereby providing a rationale for the present study.

A first gap concerns the lack of systematic investigation into how this relationship varies across specific language skills and strategy types. While some studies have addressed particular domains, such as vocabulary learning (Ismail & Aziz, 2021) or speaking (Tauchid, 2023), most have examined strategy use as a single, undifferentiated construct. This has left unanswered questions regarding whether certain strategy categories (e.g., metacognitive, cognitive, memory, social, affective, compensation) show stronger or weaker correlations with self-efficacy depending on the skill in question (listening, speaking, reading, or writing). Without a skill-specific perspective, it is difficult to identify targeted pedagogical interventions aimed at strengthening both self-efficacy and strategic competence in particular areas.

Furthermore, previous studies have sometimes relied on separate measurement tools for self-efficacy and strategy use, rather than integrated instruments capable of capturing their interplay across multiple skills and strategy categories. Recent systematic reviews of language learning research highlight methodological and contextual limitations that justify the current study's design. For instance, Fryer et al. (2025) note that most investigations into self-efficacy in L2 formal education are cross-sectional, rely on self-report instruments, and predominantly involve tertiary-level samples, which limits generalisability to younger or more diverse learner populations. A related limitation concerns the relative scarcity of longitudinal or experimental designs. To the author's knowledge, this issue, emphasised by Honicke and Broadbent (2016), still constrains our ability to infer causal relationships. Some recent attempts, such as

the meta-analysis by Jing Chen (2022), indicates that SRL interventions provide encouraging evidence that targeted pedagogical approaches can enhance both self-efficacy and strategy use. However, the relatively limited number of studies included in this review suggests that these methodological gaps remain insufficiently addressed. Similarly, Pawlak (2021) points to enduring conceptual ambiguity and an over-reliance on broad, static strategy inventories (e.g., the SILL), and although some recent contributions propose more context-, task-, and skill-sensitive perspectives, significant challenges persist. From a theoretical standpoint, there remains limited integration between the construct of self-efficacy, as conceptualised in the social cognitive framework, and the detailed taxonomies of LLSs proposed by Oxford (1990) and Chamot and O'Malley (1987). While both perspectives offer complementary insights, few empirical investigations have examined their intersection through a combined skill- and strategy-specific lens.

A further gap concerns the scarcity of research on lower-secondary-school students, especially in multilingual classroom contexts. This group is particularly important because their self-beliefs and strategic repertoires are still developing, and because the dynamics of multilingual learning environments may shape both constructs in distinctive ways. The present study's context, predominantly Italian L1 learners alongside a substantial proportion of students with Arabic, Chinese, Romanian, Albanian, and other linguistic backgrounds, remains largely underrepresented in the literature. Indeed, empirical studies on LLS use at the lower-secondary level (e.g., Griffiths, 2008; Oxford, 1996) demonstrate the distinctiveness of this age group and pedagogical setting. However, research that explores the interplay between self-efficacy and strategy use in multilingual lower-secondary school contexts is virtually absent, underscoring the novelty of the present investigation.

Together, these critiques support the need for research that (a) involves lower-secondary students, (b) incorporates strategy classification by skill type, and (c) uses robust, contextually sensitive measurement tools. Seeking to contribute to answer to these identified needs, the study investigates the correlation between self-efficacy and strategy use both at the macro level of the four language skills and at the micro level of specific strategy types. By analysing a sample of 89 lower-secondary-school students in

a linguistically diverse setting and by employing robust measures of both constructs, the research aims to provide a nuanced understanding of how self-efficacy relates to strategic behaviour in learning EFL. In doing so, it seeks to contribute to theoretical refinement while offering evidence-based recommendations for targeted strategy instruction that align with learners' skill-specific self-beliefs. By addressing these underexplored dimensions, the study not only focuses on a significant gap in the literature but also lays the groundwork for the research questions presented in the following chapter.

Part II - Research Design

Chapter 4 - Objectives and Methodology

This chapter presents the methodological framework and research design adopted in the present study, providing a foundation for understanding the subsequent analyses. It begins by outlining the study's objectives, formulating the RQs, and presenting the operational hypotheses that guided the investigation (Section 4.1). The chapter then describes the context and characteristics of the sample, including participants' age, educational level, and linguistic background (Section 4.2). The instruments used to measure strategy use and self-efficacy are presented in Section 4.3, which is further subdivided into three interconnected parts. Section 4.3.1 describes the strategy questionnaire, adapted from the work of Oxford, Cohen, and Chi (2002); Section 4.3.2 introduces the self-efficacy questionnaire, adapted from Wang, Kim, Bai, and Hu (2014); and Section 4.3.3 details the procedures followed for administering both instruments. Finally, Section 4.4 discusses the data analysis methods, including descriptive statistics and correlational procedures, illustrating how the collected data were systematically processed to explore the relationship between LLSs and self-efficacy at multiple levels of analysis.

4.1 Objectives, research questions and operational hypotheses

The primary objective of this study is to explore the relationship between perceived self-efficacy and the use of LLSs among lower-secondary school students engaged in EFL learning. By focusing on a linguistically diverse learner population, the study seeks to provide a nuanced understanding of how learners' self-beliefs interact with their strategic choices across different language domains. This investigation is

particularly timely given the limited research attention devoted to younger learners and multilingual educational settings.

To achieve this, the study is guided by the following central research questions:

- RQ1: Is there a statistically significant correlation between students' perceived self-efficacy and the overall frequency with which they employ LLSs?
- RQ2: Does the strength or nature of this correlation differ according to specific language skill areas, namely listening, reading, writing, and speaking?
- RQ3: Which categories of LLSs, namely memory, cognitive, compensation, metacognitive, or social strategies, are most strongly associated with higher levels of self-efficacy?

These questions frame an inquiry into both the general patterns and the more detailed skill- and strategy- specific dynamics that characterise the interplay between self-efficacy and strategic behaviour in language learning.

Based on these research questions, the study formulates the following operational hypotheses:

- H1: There is positive correlation between perceived self-efficacy and the overall frequency of LLS use. Specifically, learners with higher self-efficacy beliefs are expected to report more frequent and varied use of LLSs. This hypothesis is grounded in Bandura's (1997) SCT, which emphasises that stronger self-efficacy beliefs enhance motivation and engagement in learning behaviours. Additionally, Oxford (1990) and Chamot and O'Malley (1994) highlight that learners confident in their abilities tend to employ strategies more actively and effectively. Empirical evidence further supports the idea that self-efficacy acts as a motivational driver, facilitating proactive strategy selection and persistence even in the face of challenges (Schunk & DiBenedetto, 2020).
- H2: The strength of the correlation between self-efficacy and strategy use will differ across language skill areas. It is hypothesised that this relationship will be stronger in receptive skills such as listening and reading, compared to productive skills like writing and speaking. This hypothesis is supported by Oxford's (1996) observations of differential strategy use across language domains, and by Vandergrift's (1997) findings on the prominent role of self-efficacy in listening

strategies. Moreover, Mokhtari and Reichard (2002) provide evidence that learners' perceived efficacy influences strategy use differently depending on the language skill.

- H3: Among the different types of LLSs, metacognitive strategies, which involve planning, monitoring, and evaluating one's learning, will show the strongest positive correlation with self-efficacy. This expectation is consistent with Oxford' (1990) taxonomy, which places metacognitive strategies at the core of effective SRL. Furthermore, Zimmerman's (2000) theory of SRL underscores that self-efficacy is crucial for activating metacognitive strategies. Empirical studies (Schunk, 1991) corroborate that learners with higher self-efficacy more frequently engage in metacognitive processes to manage their learning.

Together, these objectives and hypotheses establish a comprehensive framework for examining the complex relationship between learners' self-beliefs and their strategic approaches to language learning. By disentangling these patterns, the study aims to contribute both to theoretical models of language learning and to practical recommendations for pedagogical interventions tailored to learners' skill-specific needs and motivational profiles. Understanding the nuanced links between self-efficacy and strategy use across skills and strategy types can inform educators on how to design targeted support to foster learners' autonomy and effectiveness. In particular, promoting self-efficacy may be a key lever for enhancing the use of a broad range of strategies, metacognitive, cognitive, memory, compensation, and social alike, thus empowering learners to approach language tasks with greater confidence, flexibility, and persistence (Nosratinia, Saveiy, & Zaker, 2014; Montaño-González & Cancino, 2020). Conversely, systematic and scaffolded strategy training can itself serve as a catalyst for strengthening learners' self-efficacy beliefs, creating a reciprocal cycle in which confidence fuels strategic engagement, and strategic competence reinforces confidence (Kossakowska-Pisarek 2019). Such a dynamic interaction has the potential to sustain motivation, improve performance, and foster long-term learner autonomy in multilingual and diverse classrooms.

4.2 Context and participants sample

The empirical data for the present study were collected during a 150-hour curricular internship, which formed part of the researcher's master's degree programme. The internship was undertaken in two lower secondary schools that are part of a comprehensive institute located in the city of Padua, Italy. In the Italian educational system, lower secondary school (scuola secondaria di primo grado) constitutes the second cycle of compulsory education, following five years of primary school. It lasts three years and typically includes students aged between 11 and 13. This educational stage plays a central role in consolidating the foundational knowledge acquired in primary school and in preparing students for upper secondary education. Among the core subjects taught at this level, foreign languages, and particularly EFL, occupy a significant place in the curriculum, reflecting both national educational policy and the broader importance of English in international communication.

The internship was designed to provide the trainee teacher with direct classroom experience and opportunities for professional growth, while simultaneously offering the possibility to conduct classroom-based research. As a trainee, the researcher participated in teaching activities and assisted the class teachers, while simultaneously preparing for the administration of the research instruments. This dual role, both pedagogical and investigative, made it possible to gain insight into the everyday practices of language learning while maintaining the rigor required for data collection. The 150 hours of internship were distributed across different classes and teachers, thereby ensuring exposure to a variety of teaching methods and learning contexts.

The study sample consisted of 89 students in total, distributed across five classes. Specifically, the data were collected in one first-year class, two second-year classes, and two third-year classes. This distribution provided a balanced overview of learners across the three grades of lower secondary education, enabling a comparison between students at different stages of cognitive and linguistic development. The majority of participants were native Italian speakers, but several linguistic minority groups were also represented, including speakers of Arabic, Chinese, Albanian, and Romanian, reflecting the multilingual composition of the school (as noted in Section

3.2). The age of the participants ranged from approximately 11 to 13 years, corresponding to the typical age span of lower secondary students in Italy. Such an age range is particularly relevant in language learning research, as it represents a transitional phase in which learners progressively shift from childhood learning patterns to more cognitive and metacognitive approaches to study.

The English lessons observed and used for data collection were conducted by two different teachers. One of them was responsible for the first-year class, while the other taught the second-and third-year groups. This arrangement not only allowed for the inclusion of students at various levels of linguistic competence, but also introduced a useful element of methodological diversity, as each teacher brought her own pedagogical style, classroom management strategies, and interactional patterns. From a research perspective, the presence of two teachers enriched the context of observation, since it permitted the analysis of learner behaviour in response to slightly different instructional practices. At the same time, the consistency of the curriculum within the institute ensured that the overall teaching objectives remained comparable across classes.

The comprehensive institute in which the internship took place is located in an urban area of Padua. Although the precise name of the institution will not be disclosed for confidentiality reasons, it is worth noting that the sociocultural context reflects the characteristics of many Italian lower secondary schools, with heterogeneous student populations in terms of background and ability. Students entering the first year of lower secondary school typically exhibit a language proficiency corresponding to level A1 of the Common European Framework of Reference for Languages (CEFR) and are expected to reach at least level A2 by the end of the third year (MIUR, 2025). However, according to the INVALSI test results (2021), these targets are often only partially met, as many students struggle to attain the prescribed proficiency levels. This progression still provides a useful reference for understanding learners' starting points and their anticipated development in EFL. Moreover, the inclusion of five classes and two different teachers within a single institute allowed the researcher to gather a sufficiently varied sample while maintaining coherence in terms of institutional and curricular framework.

The data were collected primarily through the administration of two questionnaires, which were designed to investigate students' LLSs and their self-efficacy beliefs. Each questionnaire was administered to all participating classes in two separate sessions, in order to avoid overburdening the students. The total duration of the administration was approximately one hour and a half for each class group. During these sessions, the researcher actively guided the process: each item was read aloud, additional explanatory examples were provided when necessary, and students' questions and feedback were addressed. This collective approach ensured that all participants clearly understood the items, thus reducing potential misunderstandings and increasing the reliability of the responses.

In addition to the questionnaire sessions, the researcher interacted with the students in her role as a trainee teacher, for example by assisting them in carrying out classroom exercises, clarifying instructions, and responding to language-related doubts. Although these interactions were not part of the formal data collection, they contributed to building a climate of trust in which students perceived the researcher as supportive rather than evaluative. This aspect is particularly relevant, as the absence of an evaluative role may have encouraged students to provide more sincere and accurate answers in the questionnaires.

In summary, the context of this study can be described as that of ordinary EFL lessons in Italian lower secondary education, involving 89 learners aged 11 to 13, taught by two English teachers within the framework of a 150-hour curricular internship. The combination of a diversified yet coherent sample, authentic classroom practices, and the researcher's dual role as both trainee teacher and investigator provides a solid basis for the subsequent analysis of strategy use and self-efficacy in language learning.

4.3 Instruments used

To investigate the relationship between LLS use and self-efficacy among lower-secondary students, this study employed two complementary instruments, each adapted from established sources to suit the participants' age, linguistic proficiency, and educational context. The first instrument, a strategy questionnaire, was adapted from the

Language Strategy Use Survey developed by Oxford, Cohen, and Chi (2002) and aimed to capture learners' habitual use of LLSs across different skill domains. The second instrument, a self-efficacy questionnaire, was adapted from the questionnaire developed by Wang, Kim, Bai, and Hu (2014) and designed to assess students' confidence in performing various English language tasks, reflecting both skill-specific and general perceptions of competence. Both instruments underwent careful adaptation to ensure developmental appropriateness, linguistic accessibility, and cognitive feasibility for A1-A2 learners. This process involved adjusting item content, simplifying language, and modifying response scales to match the students' capabilities, while maintaining alignment with theoretical frameworks and ensuring psychometric robustness. Together, these tools provided a comprehensive and complementary assessment of the constructs central to this study, enabling an in-depth analysis of the interplay between self-efficacy beliefs and the use of specific LLSs. The following Subsections, 4.3.1 and 4.3.2, present detailed description of each instrument, including the rationale for the adaptation, structural organisation, and, in Subsection 4.3.3, administration procedures.

4.3.1 Strategy questionnaire

As discussed in Section 1.6, Oxford's SILL has a strong empirical basis and enjoys widespread adoption in the field of applied linguistics. However, it was deliberately not employed in this study. This choice was motivated by both practical and pedagogical considerations related to the characteristics of the target population. SILL was originally designed for learners with a relatively high level of linguistic competence and metacognitive awareness. Its items are phrased in formal, often abstract language, and assume a degree of autonomy and familiarity with L2 learning processes that is not typically found in younger learners. In contrast, the participants of this study were lower secondary school students, aged about 11 to 13, with a very limited knowledge of English. Administering the SILL, even in translation, would have posed significant risks in terms of misinterpretation, cognitive overload, and unreliable responses. The students' underdeveloped language proficiency and their limited familiarity with formal

strategic terminology necessitated the adoption of an alternative tool tailored to their developmental stage and learning context.

Therefore, it was decided to employ an adapted questionnaire based on the work of Oxford, Cohen, and Chi, previously analysed in Section 1.6, which was carefully revised to meet the needs of younger learners. The original instrument, developed in 2002 by the aforementioned scholars with the assistance of colleagues in a Study Abroad project at the Centre for Advanced Research on Language Acquisition (CARLA)., University of Minnesota, was adapted in both content and language to suit the specific characteristics of the present study's participants. This instrument, written entirely in Italian to ensure full comprehension, presents strategy items in simplified, concrete language and organises them around familiar macro-areas of language use: listening, vocabulary, speaking, reading, writing, and translation. Each section begins with a brief explanation, helping students understand what kind of strategies they are being asked about.

To illustrate the nature of the instrument, some representative examples of items from each section are provided below (the full version of the questionnaire, including all 90 items, is presented in Appendix B):

- Listening strategies:

  9. *A volte decido di prestare particolare attenzione a come il parlante pronuncia determinati suoni.* (Sometimes I decide to focus my attention on how the speaker pronounces certain sounds).

  24. *Faccio ipotesi sull'argomento di cui si sta parlando basandomi su quello che è già stato detto.* (I make guesses about the topic being discussed based on what has already been said).
- Vocabulary strategies:

  31. *A volte uso delle rime per ricordare nuove parole.* (Sometimes I use rhymes to help me remember new words).

42. *Uso le parole appena imparate per vedere se riesco a farle funzionare in modo sensato.* (I use the words I have just learned to see if I can make them work in a meaningful way).

- Speaking strategies:

  55. *Spesso chiedo agli altri di correggere i miei errori quando parlo e apprezzo il loro feedback.* (I often ask people to correct my mistakes when speaking and I appreciate their feedback).

  62. *Quando necessario, uso i gesti per esprimere il significato di quello che voglio dire.* (When necessary, I use gestures to help express what I want to say).

- Reading strategies:

  67. *Spesso prima pianifico come leggere un testo, poi nel mentre monitoro come sta andando la lettura e infine controllo quanto ho capito.* (I often start by planning how to read a text, then I monitor how the reading process is going, and finally I check how much I have understood).

- Writing strategies:

  75. *Mi esercito a scrivere frasi semplici in inglese per migliorare la mia sicurezza nella scrittura.* (I practice writing simple sentences in English to improve my confidence in writing).

  81. *Spesso uso materiale di riferimento come un dizionario (cartaceo o online) per aiutarmi a trovare o controllare parole in inglese.* (I often use reference materials, such as a dictionary, print or online, to help me find or check words in English).

- Translation strategies:

  88. *Mi impegno il più possibile per mettere da parte la mia lingua (italiano o altra) e pensare solo in inglese.* (I make every effort to set aside my mother tongue, Italian or another language, and think only in English).

  90. *Sono attent* a non trasferire sempre parole o concetti della mia lingua come se fossero uguali anche in inglese, perchè potrebbero avere un significato diverso.* (I am careful not to transfer words or concepts from my mother tongue as if they were the same in English, because they may have a different meaning).

Furthermore, the three-point scale presented to the students was designed to ensure accessibility, avoiding the complexity of Likert-style gradients that may be cognitively demanding for this age group. The scale was as follows:

1: *Uso questa strategia e la trovo utile* / I use this strategy and find it useful
2: *Ho provato questa strategia, ma mi piacerebbe approfondirla* / I have tried this strategy but would like to explore it further
3: *Non ho mai provato questa strategia* / I have never tried this strategy

This structure also allows the researcher to distinguish between strategies the learners use confidently, those they attempt occasionally, and those they are aware of but have not yet internalised. Crucially, this adaptation remained firmly grounded in the theoretical foundation of Oxford's (1990) taxonomy. The revised questionnaire preserves the essential structure of her strategy framework, including memory, cognitive, compensation, metacognitive, and social strategies, while rephrasing and regrouping items to suit the cognitive, linguistic, and experiential levels of younger learners.

Notably, affective strategies were intentionally excluded. This decision was supported by both contextual and developmental considerations. First, as briefly noted in Section 1.6, the original version of the *Language Strategy Use Survey* by Oxford, Cohen, and Chi also omitted affective strategies, suggesting that their inclusion is not essential for capturing a representative overview of learner strategy use in all contexts. Second, early adolescence is marked by emerging emotional awareness and vulnerability. According to Piaget's theory of cognitive development, learners in this age range are typically transitioning from concrete operational to formal operational thinking, meaning they are only beginning to reflect on internal states and abstract concepts such as self-regulation or emotional balance (Piaget, 1972). In parallel, Erik Erikson (1968) identified this developmental stage as one dominated by the psychosocial *conflict of identity* versus *role confusion*, which renders adolescents particularly vulnerable to issues of self-perception, emotional security, and social

acceptance (pp. 128-135). In such a phase, probing into learners' affective strategies may not only be premature but could also risk discomfort or resistance. Furthermore, as the researcher had limited personal familiarity with the participants, it was considered inappropriate to intrude into their emotional sphere. This approach is consistent with ethical guidelines in psychological research, which emphasise the importance of respecting participants' dignity and safeguarding their emotional well-being (NSPCC, 2023; Associazione Italiana di Psicologia [AIP], 2015/2022). For these reasons, the affective domain was excluded to safeguard the emotional privacy of participants and to ensure that the instrument remained developmentally appropriate and ethnically sensitive.

Moreover, it is worth repeating that while Oxford's (1990) original SILL includes 50 items distributed across these six groups, the instrument used in this study comprised 90 items, allowing for greater coverage of specific behaviours within each language skill area. This broader scope guarantees a more detailed insight into the students' strategy use, capturing a wider range of micro-strategies that may be more salient or observable in beginner learners' everyday classroom experience.

As mentioned above, Oxford's (1990) six categories are reflected in the adapted questionnaire, though implicitly, within the skill-based organisation. The table below (Table 2) summarises how Oxford's categories correspond to the sections and items of the questionnaire used in this study:

Table 2. Correspondence between Oxford's Categories of LLSs and Study Questionnaire Items.

Oxford's SILL category	Reflected in Questionnaire Section	Items examples from Questionnaire
Memory Strategies	Listening, Vocabulary	A. Creating mental linkages: 1. Grouping (29) 2. Associating/elaborating (6), (30), (39), (41) 3. Placing new words into a context (34) B. Applying images and sounds: 1. Using imagery (32), (36) 2. Semantic mapping (33) 3. Using keywords 4. Representing sounds in memory C. Reviewing well: 1. Structured reviewing (38) D. Employing action: 1. Using physical response or sensation (35), (40) 2. Using mechanical techniques (27)
Cognitive Strategies	Listening, Vocabulary, Speaking, Reading, Writing, Translation	A. Practicing: 1. Repeating (37), (45) 2. Formally practicing with sounds and writing systems (5), (7), (47), (75), (77) 3. Recognizing and using formulas and patterns (15), (44) 4. Recombining (28) 5. Practicing naturalistically (49), (65) B. Receiving and sending messages: 1. Getting the idea quickly (68) 2. Using resources for receiving and sending messages (2), (70), (81) C. Analyzing and reasoning:

		1. Reasoning deductively (12), (69), (72) 2. Analyzing expressions (17), (69), (74), (83) 3. Analyzing contrastively (across languages) 4. Translating (74), (88, not translating) 5. (Not) Transferring (90) D. Creating structure for input and output: 1. Taking notes (71), (78) 2. Summarizing 3. Highlighting
Compensation Strategies	Listening, Speaking, Reading, Writing	A. Guessing intelligently: 1. Using linguistic clues (23) 2. Using other clues (13), (18), (24), (25), (26), (53), (73) B. Overcoming limitations in speaking and writing: 1. Switching to the mother tongue (63) 2. Getting help (58) 3. Using mime or gesture (62) 4. Avoiding communication partially or totally (16) 5. Selecting the topic (50) 6. Adjusting or approximating the message 7. Coining words (60), (61) 8. Using a circumlocution or synonym (59), (79)
Metacognitive Strategies	Listening, Reading, Writing	A. Centering your learning: 1. Overviewing and linking with already known material 2. Paying attention (4), (9), (14) 3. Delaying speech production to focus on listening B. Arranging and planning your learning:

		1. Finding out about language learning 2. Organizing (66) 3. Setting goals and objectives (64) 4. Identifying the purpose of a language task (purposeful listening/reading/speaking/writing) (52) 5. Planning for a language task (10), (11), (51) 6. Seeking practice opportunities (1), (48) C. Evaluating your learning: 1. Self-monitoring (19), (46), (67), (76), (80), (82) 2. Self-evaluating
Social strategies	Listening, Speaking, Writing	A. Asking questions: 1. Asking for clarification or verification (8), (20), (21), (22), (57) 2. Asking for correction (55), (84) B. Cooperating with others: 1. Cooperating with peers 2. Cooperating with proficient users of the new language (3) C. Emphatizing with others: 1. Developing cultural understanding (56) 2. Becoming aware of others' thoughts and feelings

Source: Oxford (1990), pp. 39, 44, 48, 137, 146.

As shown in *Table 2*, whereas the SILL organises items by abstract strategy type, the adapted questionnaire follows a structure that corresponds to school-based language learning experiences. For instance, instead of grouping all *memory strategies* together regardless of skill, the questionnaire presents them within the context of vocabulary

learning and listening skill, thus anchoring strategic behaviour in situations familiar to the learners. This contextualisation not only enhances comprehension but also supports metacognitive reflection appropriate to their age.

In conclusion, although this study does not employ the original SILL in its unaltered form, it remains fully grounded in Oxford's (1990) theoretical framework. The decision to use an adapted, Italian-language questionnaire from the later work by Oxford, Cohen, and Chi (2002) was methodologically sound and aimed at ensuring validity, accessibility, and educational relevance of the data collected among early adolescent, low-proficient learners.

4.3.2 Self-efficacy questionnaire

To measure self-efficacy in English language learning, this research drew inspiration from the questionnaire developed by Wang, Kim, Bai, and Hu (2014), which itself represents an adaptation of Wang's (2004) original instrument. Wang (2004) initially developed a comprehensive self-efficacy scale for English learners at the primary school levels. This instrument was later refined and adapted by Wang, Kim, Bai, and Hu (2014) to improve its psychometric properties and to make it suitable for university students, covering specific skill domains such as listening, reading, writing, and speaking. The 2014 version consisted of 42 items rated on a 7-point Likert scale, with detailed formulations designed for adult learners in a higher education context. Notably, many of these items addressed activities and contexts typical of university students, such as describing one's university or writing extended essays about instructors, tasks that are clearly not aligned with the experience or linguistic competence of lower-secondary students at the A1-A2 level. Examples include items such as "Can you describe your university to other people in English?" or "Can you write an essay in two pages about your English instructor in English?". These items, while appropriate for young adults with advanced proficiency, were clearly unsuitable for the present population of middle school learners.

Given these considerations, the Wang et al. (2014) questionnaire required substantial adaptation to ensure age-appropriateness, linguistic accessibility, and cognitive feasibility for a lower-secondary school population. The adaptation process involved several methodological adjustments. First, the number of items was reduced from 32 to 14, selecting items that were both relevant to students' language learning experiences and achievable at the A1-A2 level. In doing so, all items directly referencing university life or culturally and developmentally irrelevant scenarios were omitted. Second, the response scale was reduced from a 7-point to a 5-point Likert scale, with clear descriptors to facilitate comprehension. Whereas Wang et al's scale ranged from "Not at all confident" (1) to "Completely confident" (7), the present study employed a more accessible formulation ranging from "1 = Not at all (confident)" to "5 = Completely (confident)". This adjustment ensured that students could reliably differentiate their self-efficacy beliefs without cognitive overload. Third, all items were translated into Italian to ensure full comprehension and accurate self-assessment. The complete version of the adapted self-efficacy questionnaire is provided in Appendix A.

For the present study, the adapted questionnaire was structured to capture both skill-specific and general self-efficacy beliefs in using EFL. The questionnaire included a total of 14 items, of which 12 were distributed among the four macro-skills (listening, reading, writing, and speaking). In the Italian version, the author adopted the use of an asterisk (*) as a marker of gender-inclusive language, reflecting both masculine and feminine forms.

Listening: Items 1, 3, and 4

1. *Quanto ti senti sicur* nel comprendere storie raccontate (a voce) in inglese?* How confident do you feel in understanding stories told orally in English?

3. *Quanto ti senti sicur* a guardare un video in inglese e capire di cosa parla?* How confident do you feel in watching a video in English and understanding what it is about?

4. *Quanto ti senti sicur* a capire cosa dice l'insegnante quando parla in inglese in classe?*

How confident do you feel in understanding what the teacher says when speaking English in class?

Reading: Items 5, 9, and 10

5. *Quanto ti senti sicur* a usare un'app o un gioco in inglese?*
How confident do you feel in using an app or a game in English?

9. *Quanto ti senti/sentiresti sicur* nel capire il significato di una canzone inglese che ti piace, se puoi leggerne il testo?*
How confident would you feel in understanding the meaning of an English song you like, if you can read its lyrics?

10. *Quanto ti senti sicur* nel leggere numeri oltre 100 in inglese (es. 387)?*
How confident do you feel in reading numbers over 100 in English (e.g., 387)?

Writing: Items 2, 6, and 11

2. *Quanto ti senti sicur* nello svolgere correttamente i compiti di inglese da solo?*
How confident do you feel in correctly completing English homework on your own?

6. *Se l'insegnante ti chiede di scrivere delle frasi in inglese, quanto ti senti sicur* nel farlo?*
If the teacher asks you to write sentences in English, how confident do you feel in doing so?

11. *Quanto ti senti sicur* nel creare frasi con parole nuove che hai appena imparato?* (es. Hai imparato *big* e sai scrivere la frase "The house is big")
How confident do you feel in creating sentences with new words you have just learned? (e.g., you learned "big" and can write the sentence "The house is big")

Speaking: Items 7, 8, and 13

7. *Quanto ti senti sicur* a fare una presentazione orale in inglese davanti alla classe?* How confident do you feel in giving an oral presentation in English in front of the class?

8. *Quanto ti senti sicur* nel chiacchierare in inglese con i tuoi compagni su argomenti come scuola, hobby o sport?*

How confident do you feel in chatting in English with your classmates about topics such as school, hobbies, or sports?

13. *Quanto ti sentiresti sicur* nel raccontare la tua giornata in inglese all'insegnante o ad un tuo compagno? (es. "I usually wake up at 7. I have breakfast with milk and biscuits…")*

How confident would you feel in telling your day in English to the teacher or a classmate? (e.g., "I usually wake up at 7. I have breakfast with milk and biscuits…").

All items were scored on a 5-point Likert scale reflecting participants' perceived confidence in performing the described tasks. For the 12 skill-specific items, the scale ranged from 1 (per niente) to 5 (completamente), as follows:

1: *Per niente* / Not at all

2: *Poco* / A little

3: *Abbastanza* / Somewhat

4: *Molto* / Very

5: *Completamente* / Completely

In addition, two general items were included to assess participants' overall perception of their English proficiency and their affective response during language tasks:

Item 12: *Quanto ti senti sicuro del tuo livello di inglese in generale?*

How confident do you feel about your English level in general?

Item 14: *Quando devi svolgere un compito in inglese, come ti senti?*

When you have to complete an English task, how do you feel?

For this final general item, the Likert scale was slightly modified to capture more subtle qualitative nuances in participants' affective response, such as elements of task-related confidence and potential anxiety. The 5 response options were:

1: *Molto nervos*, penso che sbaglierò molto e questo mi blocca.*

Very nervous: I think I will make many mistakes and this blocks me.

2: *Nervos*, ho paura di sbagliare, ma ci provo comunque*.

Nervous: I am afraid of making mistakes, but I try anyway.

3: *Neutr*, né preoccupat* né sicur*.*

Neutral: neither worried nor confident.

4: *Abbastanza sicur*, so che potrei sbagliare, ma non mi preoccupa troppo.*

Fairly confident: I know I could make mistakes, but it does not worry me too much.

5: *Molto sicur*, penso che andrò bene.*

Very confident: I think I will do well.

This modified scale allowed participants to express their confidence with a finer-grained affective judgment, complementing the more general confidence ratings of the 12 skill-specific items.

The inclusion of both general and specific items is theoretically justified: general self-efficacy items provide a holistic view of learners' beliefs about their capabilities, which is crucial for understanding overall motivation and persistence (Bandura, 1997), whereas skill-specific items enable the investigation of differential self-efficacy across distinct language domains, allowing correlations with the use of specific learning strategies. This dual structure not only aligns with established theoretical frameworks (Bandura, 1977, 1986, 1994; Zimmerman, 1995a/b) but also ensures that the instrument is sensitive to both broad beliefs and domain-specific perceptions, providing richer, more interpretable data for the study's research questions. Finally, the administration of the questionnaire was carefully standardised. Students completed the questionnaire individually in class, with instructions emphasising that there were no correct or incorrect answers and that honest self-assessment was essential.

4.3.3 Administration procedures

The questionnaires were administered in paper format and in Italian, as already explained in Sections 4.3.1 and 4.3.2. To guarantee anonymity, students were given the option to write either their real name or a fictitious one, provided that it was used consistently in both sessions. As mentioned in Section 4.2, students had been reassured

in advance that the activity would not involve any form of evaluation, and this assurance was reiterated in the written instructions included in both parts of the questionnaires. The administration of the questionnaires was carried out over two separate sessions of approximately forty-five minutes each, within the same week for every class. The decision to administer them at an intermediate stage of the internship was deliberate: sufficient time had been allowed to establish a relationship of familiarity with the students, while avoiding a point too close to the end of the internship. This timing ensured, on the one hand, the possibility of collecting any questionnaires in which students had initially omitted responses, which indeed occurred in a few cases, and, on the other hand, it also provided an opportunity, for personal research interest, to observe whether any change in students' strategic approach to language learning would emerge after the completion of the questionnaires.

In the first session, students were asked to complete the entire self-efficacy questionnaire, consisting of fourteen items, followed by the first section of the LLS questionnaire, specifically items 1 to 44. This part covered strategies related to listening and vocabulary. During the second session, conducted on a different day of the same week, students completed the remaining section of the strategy questionnaire, which included items 45 to 90 concerning speaking, reading, writing, and translation strategies. In terms of administration procedures, a distinction was made between the two instruments. For the self-efficacy questionnaire, students were given greater autonomy, as this part required a more introspective and personal reflection. Clarifications were provided only upon request, ensuring that the responses reflected the students' own perceptions without external influence. In contrast, for the strategy questionnaire, additional guidance was offered. In particular, examples were prepared in advance for items that were deemed potentially complex or ambiguous in their formulation. Notably, the paper version provided to students did not include these examples; instead, they were presented orally by the researcher after each item was read. This approach was intentionally adopted to maintain students' attention and engagement, ensuring that they actively listened and processed each example in conjunction with the corresponding item, rather than passively reading pre-provided

illustrations. These examples were sometimes adapted according to the linguistic level of the class in order to facilitate understanding. For instance, for item 34: *Scrivo quasi sempre la nuova parola inserendola in una frase che abbia un significato per me* (I almost always write the new word by inserting it in a sentence that has a meaning for me), different examples were employed. In the first-year class, the example provided was: *Se sto imparando il verbo 'to play', scrivo: 'I play football with my friends'.* (If I am learning the verb 'to play', I write: "I play football with my friends."). In the second- and third-year classes, however, the example used was: *Se sto imparando il Past Simple, scrivo 'Yesterday I ate pasta and an apple'.* (If I am learning the past tense, I write: "Yesterday I ate pasta and an apple."). This adjustment was made based on the awareness that the Past Simple is generally introduced in the curriculum starting from the second year of lower secondary school. Through these procedures, the administration of the instruments was conducted in a way that ensured clarity of instructions, comparability of conditions across classes, and a balance between autonomy and support, depending on the nature of the questionnaire.

In some instances, once the questionnaires had been completed, teachers occasionally permitted brief informal remarks regarding possible applications of certain strategies in classroom practice. For example, during a reading activity in a second-year class, attention was directed to the potential usefulness of applying skimming followed by scanning in order to answer comprehension questions. In that context, students were encouraged to identify the keyword of the question within the text and to include in their response the contextual details in which that keyword appeared. These moments, although not part of the formal administration procedure, provided an opportunity to informally highlight the practical value of some strategies in authentic classroom tasks.

4.4 Data analysis methods

Prior to conducting any statistical analysis, all participants' responses were tabulated in Google Sheets to ensure accurate data management. To ensure participant confidentiality, students' identifiers were anonymised using a class-based coding system. For example, students from 1G were labeled as 1G-S01, 1G-S02, 1G-S03, and

so on. For the purpose of statistical analyses, the response scale for strategy use was reversed. Originally, the scale was coded as 1 = 'used', 2 = 'tried', 3 = 'never used'. For the analyses, it was recoded as 1 = 'never used', 2 = 'tried', 3 = 'used' in order to align the direction of the scale with that of the self-efficacy items (1 = 'not at all confident', 5 = 'completely confident'), ensuring consistency for subsequent correlational analyses. As a preliminary step, descriptive statistics were computed for both self-efficacy and strategy use. These included the mean (M), which indicates the average score, and the standard deviation, which shows how much individual scores deviate from the mean, thus providing a sense of variability within the group. In addition to these measures of central tendency and dispersion, quartile-based statistics were examined and illustrated in two box plots: the first quartile (Q1) marks the value below which 25% of the observations fall, the median represents the central score dividing the dataset into two halves, and the third quartile (Q3) indicates the value below which 75% of the observations fall. From these values, the interquartile range (IQR = Q3 - Q1) was calculated to show the spread of the middle 50% of the data. To provide a full picture of the distribution, the minimum (min) and maximum (max) values were also reported. To further evaluate the shape of the distributions, two additional indices were calculated. Skewness measures whether distribution is symmetric or tends to have a longer tail on one side, while kurtosis captures how peaked or flat the distribution is compared to a normal bell-shaped curve. Together with visual inspection of histograms, these indices provided essential evidence on whether the data could be considered approximately normal. This verification was crucial, as it determined the choice of subsequent inferential tests. All subsequent analyses were designed to address the RQs outlined in this study, following a structured, stepwise approach.

Research Question 1 (RQ1) aimed to examine the overall relationship between students' self-efficacy and their general use of LLSs. Since the normality of the data had already been verified in the overall descriptive statistics through skewness, kurtosis, and histogram inspection, Pearson's correlation was deemed appropriate. This decision avoided the use of Spearman's rank-order correlation, which is generally reserved for non-normal data. Therefore, Pearson correlation coefficients (r) were computed. This coefficient ranges from -1 to +1 and indicates both the strength and the direction of the

linear association: values closer to +1 denote a strong positive relationship, those closer to -1 indicate a strong negative relationship, and values near 0 suggest no linear association. To test whether these correlations were statistically significant, the associated *p*-values were reported. A small *p*-value suggests that the correlation is unlikely due to random chance. In addition, the test statistic $t(87)$ was calculated, where the number in parenthesis indicates the degrees of freedom ($n - 2 = 87$ in this case, with $n = 89$ participants). Reporting *r*, *p*, and *t* together provides a complete picture of the correlation's strength, direction, and significance. Finally, the results were also displayed in a scatterplot, a graph in which each point represents a pair of scores, with a fitted trend line to illustrate the overall direction of the relationship, facilitating preliminary interpretation in relation to RQ1.

Research Question 2 (RQ2) focused on the correlation between self-efficacy and strategy use within specific language skills, namely listening, speaking, reading, and writing. Initially, descriptive statistics (M, SD) were calculated for strategy use within each skill, and frequencies of strategy adoption were visualised through bar charts, which provided an immediate overview of students' engagement with strategies in each skill area. Pearson correlation coefficients (*r*), significance values (*p*), and test statistics $t(87)$ were then computed for each skill to examine how self-efficacy related to strategy use per skill. To enhance interpretability, four scatterplots were generated, each corresponding to one of the four language skills. This approach enabled a focused analysis that highlighted both the areas of strongest alignment and those of weakest association between self-efficacy and skill-specific strategy use.

Research Question 3 (RQ3) investigated the relationship between self-efficacy and specific types of strategies, including metacognitive, cognitive, memory, social, and compensation strategies. Descriptive statistics (M, SD, min, max) were calculated for each strategy type to capture the general pattern of use, and bar charts were created to display the relative frequency of strategy adoption across the different categories. Pearson correlation coefficients (*r*), *p*-values, and $t(87)$ statistics between self-efficacy and each strategy type were computed, and two scatterplots were presented to represent the strongest and weakest correlations, respectively. This method allowed for a nuanced

exploration of the differential impact of self-efficacy on various strategy types, highlighting potential areas of stronger or weaker association.

Overall, this analytic framework was designed to provide a comprehensive understanding of how self-efficacy relates to LLS use at both the general and specific levels. The combination of descriptive statistics, correlational analysis, and targeted visualisations ensured that the investigation remained closely aligned with the RQs while facilitating clear and interpretable presentation of the results.

Part III - Data Analysis

Chapter 5: Results

This chapter presents the empirical findings of the study through both descriptive and inferential analyses, supported throughout by tables and graphical representations. Section 5.1 provides general descriptive statistics of the two key variables, self-efficacy and overall strategy use, including measures of central tendency, dispersion, and distribution. Section 5.2 addresses the Research Question 1 by reporting Pearson correlations between overall self-efficacy and overall LLS use. Section 5.3 examines the results regarding Research Question 2, analysing skill-specific descriptive statistics and correlations across Listening, Speaking, Reading and Writing. Section 5.4 presents findings related to Research Question 3, reporting correlations between self-efficacy and the five categories of strategies, namely Metacognitive, Cognitive, Memory, Social, and Compensation. Finally, Section 5.5 provides a summary of the main findings.

5.1 Descriptive statistics

This section presents the descriptive statistics of the two key variables under investigation: students' self-efficacy beliefs and their reported use of LLSs. The analysis of central tendency and variability provides an overview of the general profile of the participants and serves as a preliminary step before turning to the correlational analyses. The complete table presenting all descriptive statistics discussed in this section is available in Appendix C.

Regarding self-efficacy, the participants obtained a mean score of 3.186 (SD = 0.652) on a five-point Likert scale. This result indicates that, on average, students

perceive themselves as moderately confident in their language learning abilities. The median score is 3.143, with the first quartile (Q1) at 2.714 and the third quartile (13) at 3.643, yielding an interquartile range (IQR) of 0.929. The minimum and maximum values are 1.857 and 4.714, respectively, showing that while most students scored around the central range, some reported particularly low or high levels of self-efficacy. The standard deviation shows that individual responses varied to some degree, but most students tended to cluster around the central value. The skewness index is slightly positive (0.349), suggesting a minor rightward asymmetry, with a proportion of students reporting higher-than-average levels of self-efficacy. The kurtosis value (-0.509) points to a somewhat flatter distribution compared with the normal curve, with fewer scores concentrated at the mean and slightly more dispersed toward the tails. Both indices fall within the acceptable range of ±1, confirming that the distribution of self-efficacy scores can be considered approximately normal. The histogram (Figure 1) further supports this conclusion, showing a quasi-bell-shaped distribution with a peak around the values of 3.06-3.44 and lighter tails extending toward the extremes.

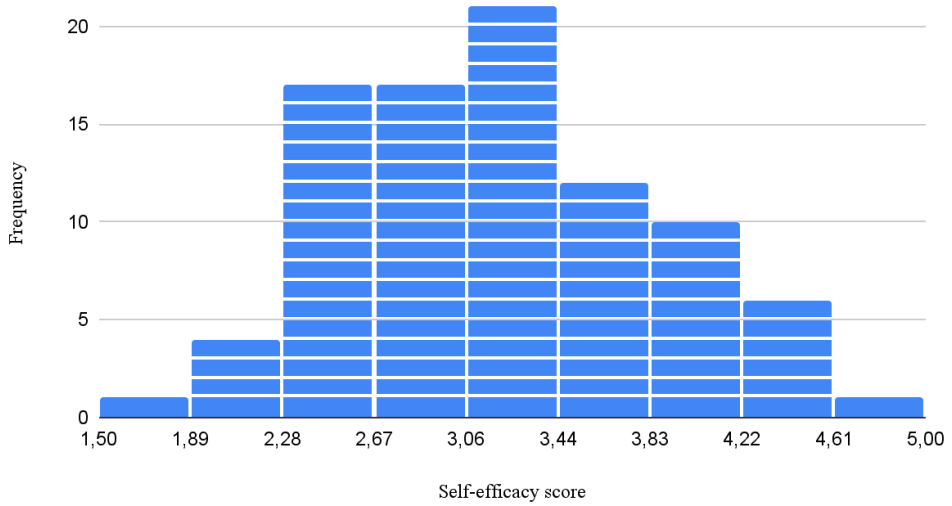


Figure 1: Overall distribution of self–efficacy scores.

The box plot (Figure 2) confirms the presence of some variability at the extremes, but no outliers were detected.

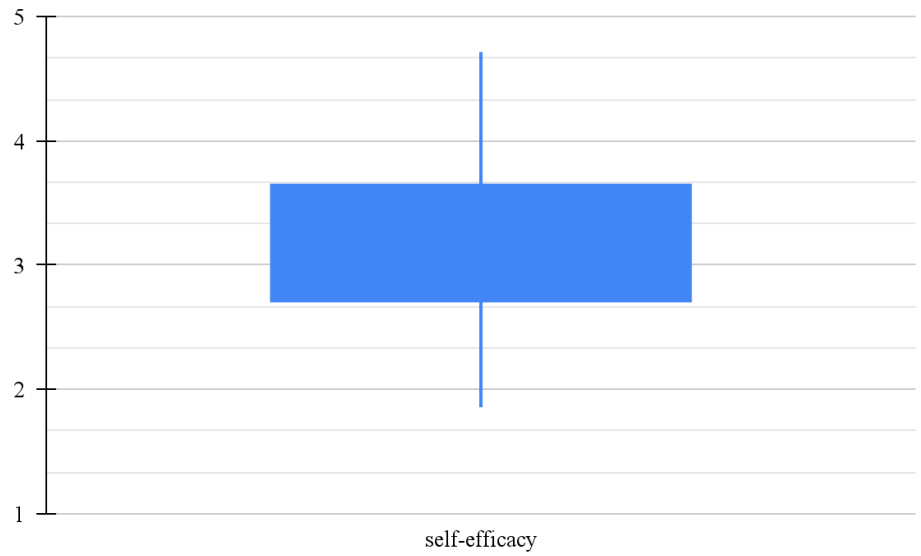


Figure 2: Box plot of students' overall self-efficacy.

Findings regarding overall use of LLSs are visible in the following pages.

As for the global use of LLSs, the mean is 1.926 (SD = 0.223) on a three-point scale (1 = never used, 2 = tried but would like to learn more about it, 3 = I use it). The median score is 1.922, with Q1 at 1.767 and Q3 at 2.111, resulting in an IQR of 0.344. The minimum and maximum values are 1.267 and 2.433, respectively, indicating a moderate spread of reported strategy use among participants, as shown in Figure 3. This average suggests that most students reported having experimented with strategies but not yet adopted them as a systematic and consistent part of their learning repertoire. The low standard deviation demonstrates a high level of homogeneity among participants, with relatively little divergence from the mean.

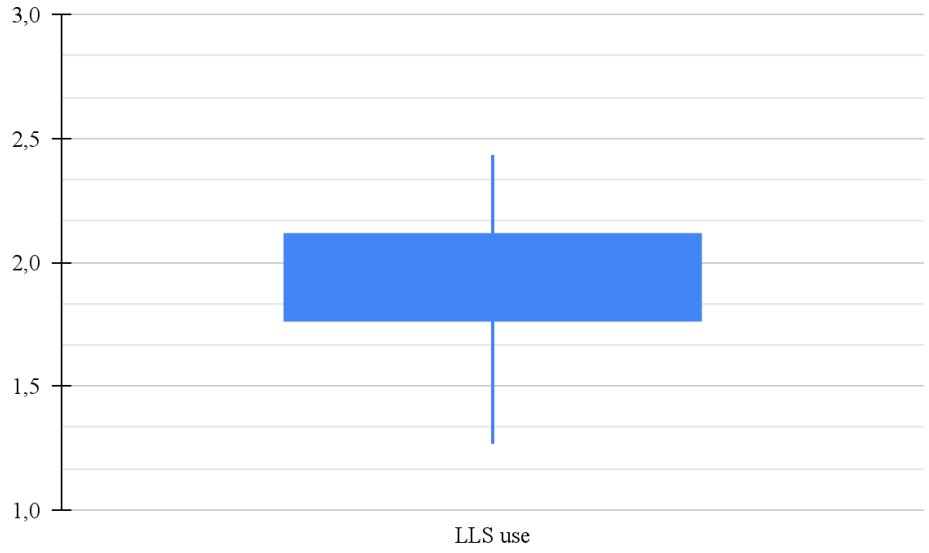


Figure 3: Box plot of students' overall LLS use.

The distribution is slightly left-skewed (-0.363), reflecting a minor tendency for scores to cluster above the mean, while the kurtosis value (-0.033) is close to zero, indicating a shape similar to the normal curve. Nevertheless, the histogram (Figure 4) reveals an additional pattern not fully captured by the numerical indices: the distribution shows a slight bimodality, with one cluster of students situated between 1.75 and 1.90 and another between 2.05 and 2.20. This suggests that while many students remain at the stage of occasional or tentative strategy use, a subgroup has begun to move toward more stable and consistent use.

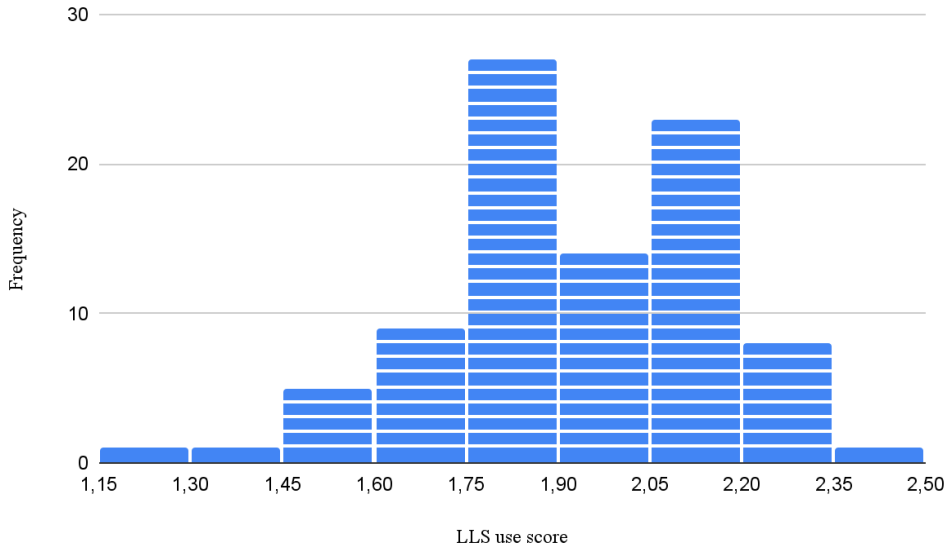


Figure 4: Overall distribution of LLS use scores.

Taken together, the descriptive results provide a detailed snapshot of the dataset. On the one hand, students display a moderately strong sense of self-efficacy, which theoretically should foster persistence and engagement in learning tasks. On the other hand, the actual reported use of strategies remains relatively limited, situated between *occasional experimentation* and consistent use, and distributed across two emerging clusters of learners. The interquartile ranges and extreme values further highlight that, while most students fall around the central tendencies, small groups are exhibiting either particularly low or high scores on both measures. Table 3 below summarises the main descriptive statistics.

Table 3: Overall descriptive statistics of self-efficacy and LLS use scores.

	min	Q1	median	Q3	max	mean	SD	IQR
Self-efficacy scores (1-5)	1.857	2.714	3.143	3.643	4.714	3.186	0.652	0.929
LLS use scores (1-3)	1.267	1.767	1.922	2.111	2.433	1.926	0.223	0.344

5.2 Results for RQ1: Correlations between self-efficacy and overall use of LLSs

The first research question (RQ1) addressed in this study was formulated as follows: Is there a significant correlation between students' self-efficacy beliefs and their overall use of LLSs? This question aims to investigate whether learners who perceive themselves as more capable and confident in their language learning are also those who tend to employ a broader range of strategies more frequently. As with the descriptive statistics reported in Section 5.1, all underlying descriptive and correlational data in the following section can be consulted in the comprehensive table provided in Appendix C.

To address RQ1, a Pearson product-moment correlation was conducted between the mean score of self-efficacy and the composite score of overall LLS use. Assumptions of linearity, normality, and the absence of outliers were verified prior to analysis (see Section 5.1), confirming the appropriateness of this statistical test.

The analysis reveals a statistically significant positive correlation, $r = .625$, $t(87) = 7.468$, $p < .001$, with a sample size of $n = 89$. The Pearson correlation coefficient (r) ranges between -1 and +1, where values closer to zero indicate weaker associations and values closer to ±1 indicate stronger associations. In this case, an r of .625 suggests a strong positive relationship, meaning that higher self-efficacy scores are associated with greater reported use of strategies. The p-value indicates the probability of observing such a result if the null hypothesis of no correlation were true. Conventionally, results are considered statistically significant at thresholds of $p < .05$, $p < .01$, and $p < .001$. Since the present result is well below .001, it indicates a highly significant association that is very unlikely to be due to chance.

The reported $t(87) = 7.468$ corresponds to the test statistic associated with the correlation and, together with the observed r value, indicates that the relationship between self-efficacy and overall LLS use is statistically robust. This finding is further supported by the scatterplot in Figure 5, which visually displays a clear upward trend in the data points, illustrating the positive linear association between the two variables. Importantly, no extreme values were identified that could unduly influence the

correlation coefficient, thus lending further robustness to the result. In other words, as students' self-efficacy increases, their reported use of LLSs also increases, and conversely, lower self-efficacy is associated with less frequent strategy use.

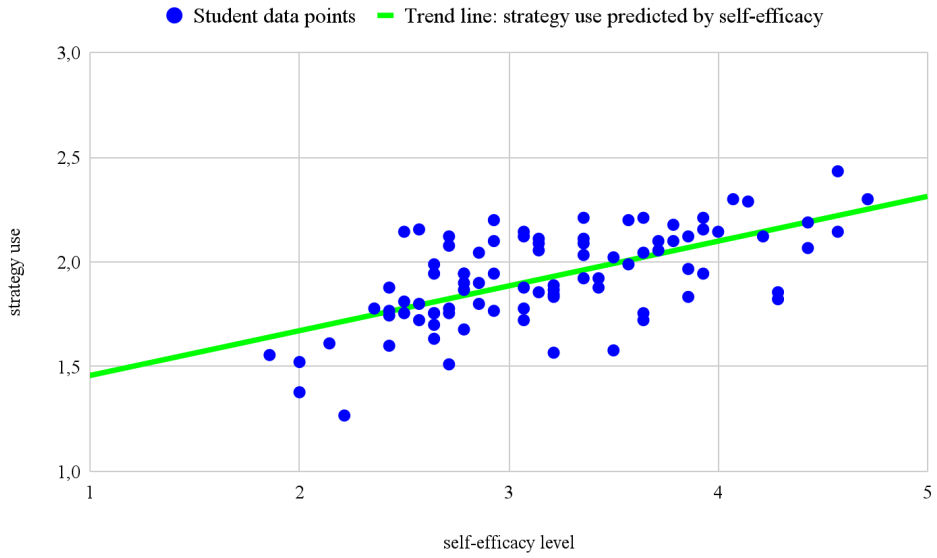


Figure 5: Scatterplot with trend line showing the positive association between students' self-efficacy and overall use of LLSs.

5.3 Results for RQ2: Correlation between self-efficacy and LLS use across language skills

The second research question (RQ2) aims to investigate whether students' self-efficacy beliefs are significantly correlated with their use of LLSs across the four main language skills: Listening, Speaking, Reading and Writing. To address this question, correlations were calculated between skill-specific mean scores of self-efficacy and the corresponding mean scores of strategy use items. Of the 14 items included in the self-efficacy questionnaire, 12 were skill-specific (three items per skill). In contrast, two items addressed general aspects of language learning and were therefore excluded from these analyses. Similarly, only the strategy items corresponding to the four language skills were considered. In contrast, items related to Vocabulary and Translation were excluded, as the self-efficacy measure did not contain skill-specific

items for these domains. This approach ensured that each correlation reflected a meaningful skill-specific association.The full dataset supporting the results for RQ2 is available in Appendix D.

Descriptive statistics were first calculated for self-efficacy and strategy use across the four skills (see Table 4). For Listening, the mean self-efficacy score is M = 3.045 (SD = 0.785) and the mean strategy use score is M = 1.949 (SD = 0.267). Writing shows M = 3.408 (SD = 0.792) for self-efficacy and M = 1.953 (SD = 0.347) for strategy use. Reading has M = 3.461 (SD = 0.732) for self-efficacy and M = 1.752 (SD = 0.332) for strategy use. Finally, Speaking presents M = 2.839 (SD = 0.769) for self-efficacy and M = 2.075 (SD = 0.225) for strategy use. Overall, descriptive statistics indicate that students' perceived self-efficacy is lowest in Speaking and highest in Reading. In contrast, reported strategy use is lowest in Reading and highest in Speaking, highlighting a compensatory relationship between perceived competence and strategy use.

Table 4. Mean (M) and standard deviation (SD) of self-efficacy (1-5 scale) and strategy use (1-3 scale) across the four language skills.

	Self-efficacy (1-5 scale)		LLS use (1-3 scale)	
Skill	M	SD	M	SD
Listening	3,045	0,785	1,949	0,267
Writing	3,408	0,792	1,953	0,347
Reading	3,461	0,732	1,752	0,332
Speaking	2,839	0,769	2,075	0,225

Figures 6 and 7 display the mean scores of self-efficacy and strategy use for each skill using bar charts, illustrating the relative distribution of students' perceived competence and reported strategy use across the four domains.

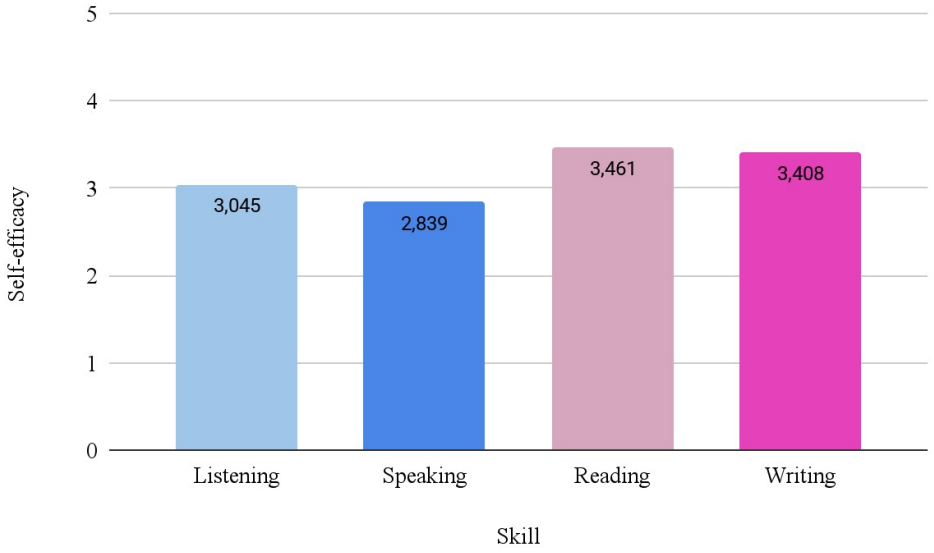


Figure 6. Mean self-efficacy scores for each language skill.

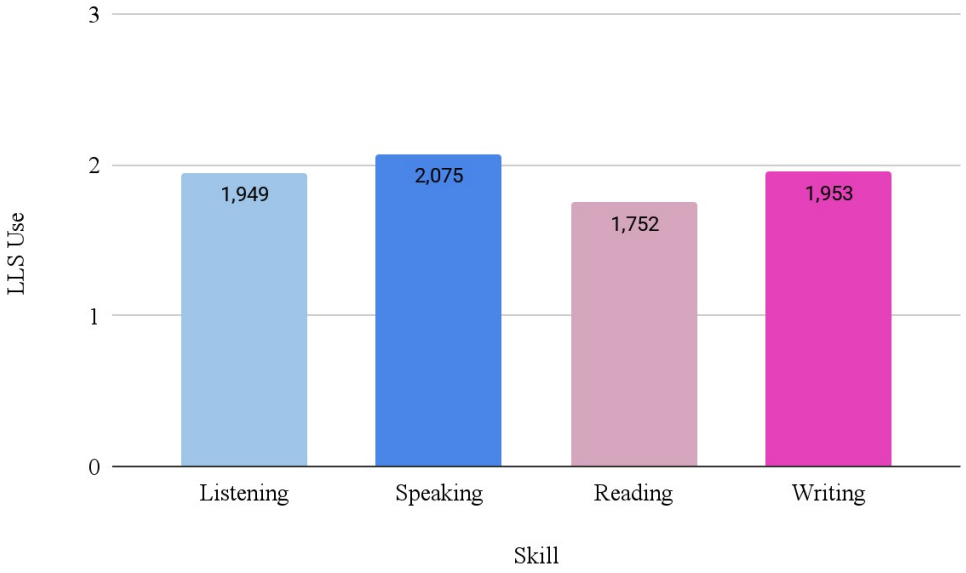


Figure 7. Mean use of LLSs for each language skill.

Pearson product-moment correlations revealed statistically significant positive associations for all four skills. Specifically, Listening shows the strongest correlation, $r = .575$, $t(87) = 6.557$, $p < .001$; Writing follows with $r = .421$, $t(87) = 4.329$, $p < .001$; Reading has $r = .412$, $t(87) = 4.219$, $p < .001$; and Speaking $r = .351$, $t(87) = 3.498$, $p < .001$. These results suggest that students who perceived themselves as more competent in a given language skill also tended to report higher use of strategies for that skill. Scatterplots for each skill (Figures 8-11) visually corroborate these findings, illustrating clear upward trends and the absence of extreme values that could unduly influence correlations.

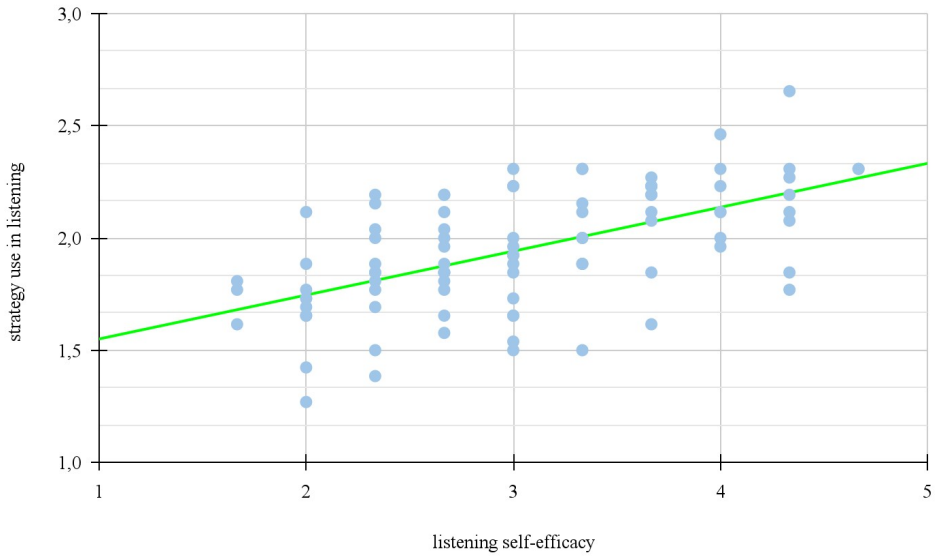


Figure 8. Scatterplot showing the relationship between students' self-efficacy and strategy use for Listening.

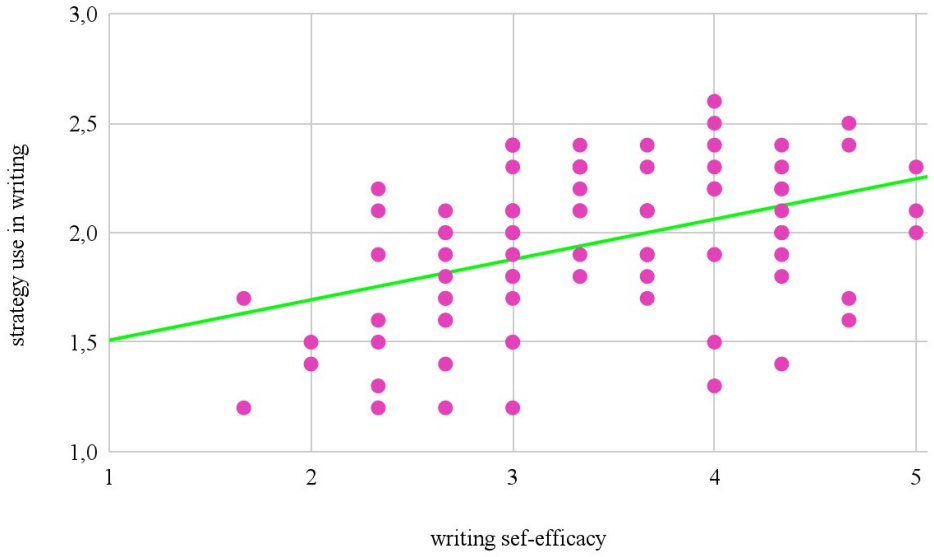


Figure 9. Scatterplot showing the relationship between students' self-efficacy and strategy use for Writing.

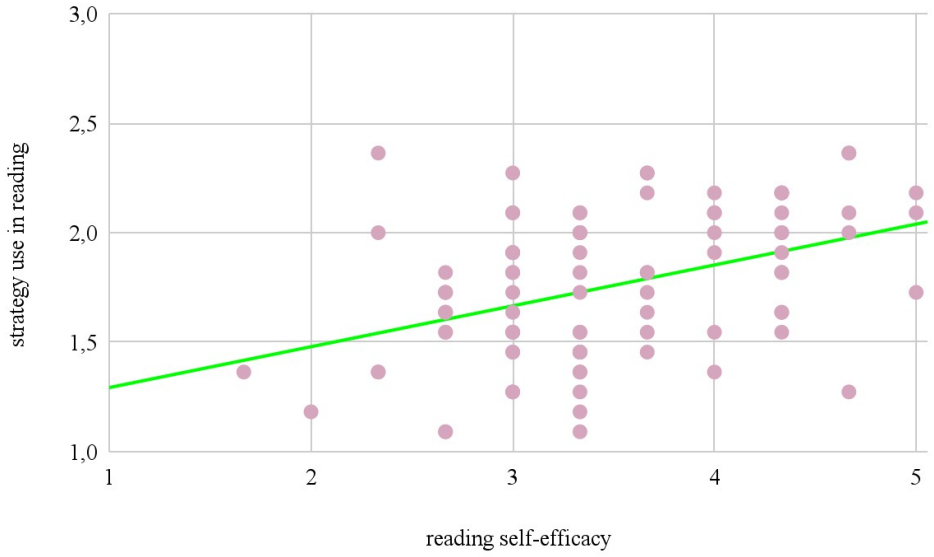


Figure 10. Scatterplot showing the relationship between students' self-efficacy and strategy use for Reading.

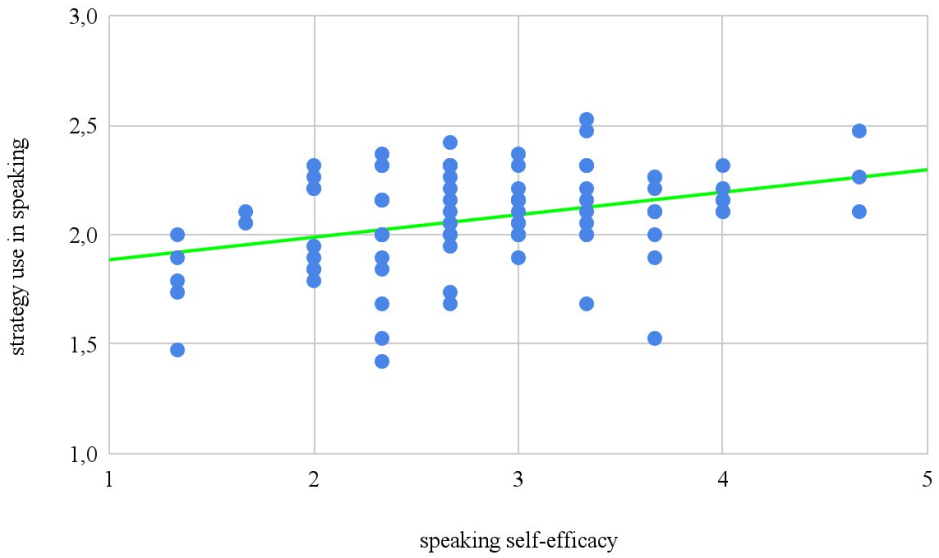


Figure 11. Scatterplot showing the relationship between students' self-efficacy and strategy use for Speaking.

Overall, the results suggest that the positive association between self-efficacy and strategy use observed at the global level (Section 5.2) is consistently present when considering individual language skills. Importantly, these analyses are based exclusively on skill-specific items, ensuring that each correlation accurately reflects the relationship between perceived competence and strategy use within the same skill domain.

5.4 Results for Research Question 3: Correlation between self-efficacy and categories of strategies

The third research question (RQ3) examined whether students' self-efficacy beliefs were significantly correlated with their use of different categories of LLSs. To address this question, Pearson correlations were calculated between the overall mean scores of self-efficacy and the mean scores of each of the five strategy groups: Metacognitive, Cognitive, Memory, Social, and Compensation strategies. This procedure allowed for a more fine-grained analysis of the extent to which self-efficacy

is related to specific categories of strategy use rather than strategy use in general. Appendix E presents all descriptive and correlational data reported for RQ3.

Descriptive statistics for the five strategy groups are presented in Table 5. Among the categories, Compensation strategies have the highest reported mean (M = 2.218, SD 0.274), followed by Social strategies (M = 1.960, SD = 0.329). Cognitive strategies (M = 1.827, SD = 0.265) and Metacognitive strategies yield the lowest mean (M = 1.794, SD = 0.319). These results indicate that students tend to rely more on strategies aimed at compensating for linguistic gaps or interacting socially, while strategies for memorisation and higher-order regulation of learning are used less frequently on average.

Table 5. Descriptive statistics for categories of strategies.

	M	SD	min	max
Metacognitive	1,814	0,285	1,118	2,529
Cognitive	1,827	0,265	1,269	2,461
Memory	1,794	0,319	1,125	2,562
Social	1,960	0,329	1	2,555
Compensation	2,218	0,274	1.389	2,778

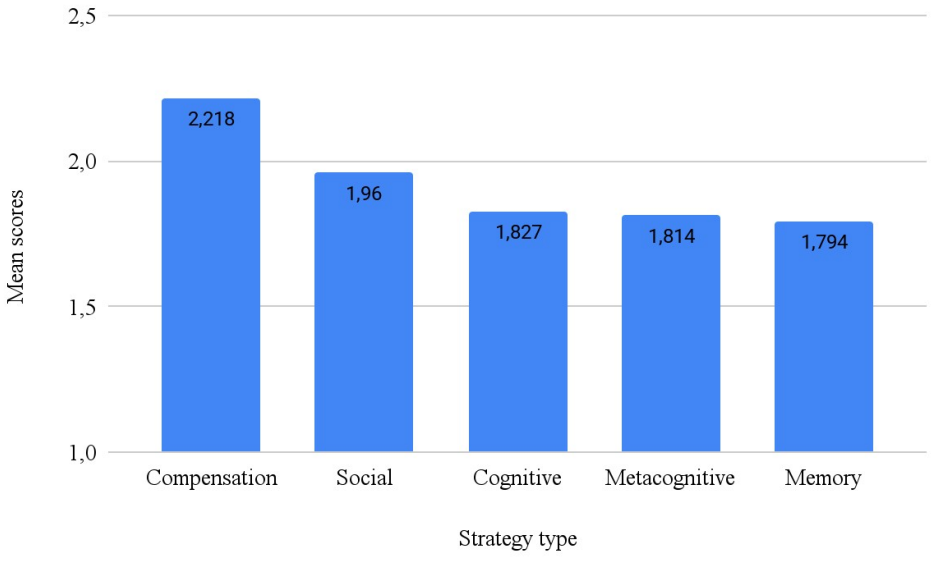


Figure 12. It displays the mean scores for each type of strategy in a bar chart, providing a visual representation of the relative frequency of use.

Correlational analyses revealed statistically significant positive associations between self-efficacy and all five types of strategies, though with varying strengths. The strongest correlation emerged for Cognitive strategies, $r = .677$, $t(87) = 8.586$, $p < .001$, suggesting that students with higher self-efficacy were particularly likely to employ strategies related to practice, analysis, and manipulation of language input. Metacognitive strategies also showed a robust association, $r = .595$, $t(87) = 6.901$, $p < .001$, indicating a strong link between self-efficacy and planning, monitoring, and evaluating learning activities. More moderate correlations were found for Social strategies, $r = .418$, $t(87) = 4.296$, $p < .001$, and Memory strategies, $r = .387$, $t(87)$ 3.920, $p < .001$, suggesting that higher self-efficacy is associated with increased use of interactional strategies and mnemonic techniques. The weakest, yet still statistically significant, correlation was observed for Compensation strategies, $r = .238$, $t(87) = 2.287$, $p = .025$.

Scatterplots for Cognitive and Compensation strategy groups (Figures 13-14) visually corroborate these findings. The scatterplot for Cognitive strategies, representing the strongest correlation, shows a pronounced upward trend with no evidence of influential outliers. In contrast, the scatterplot for Compensation strategies illustrates a weaker, though still positive, association, with data points more widely dispersed around and below the trend line.

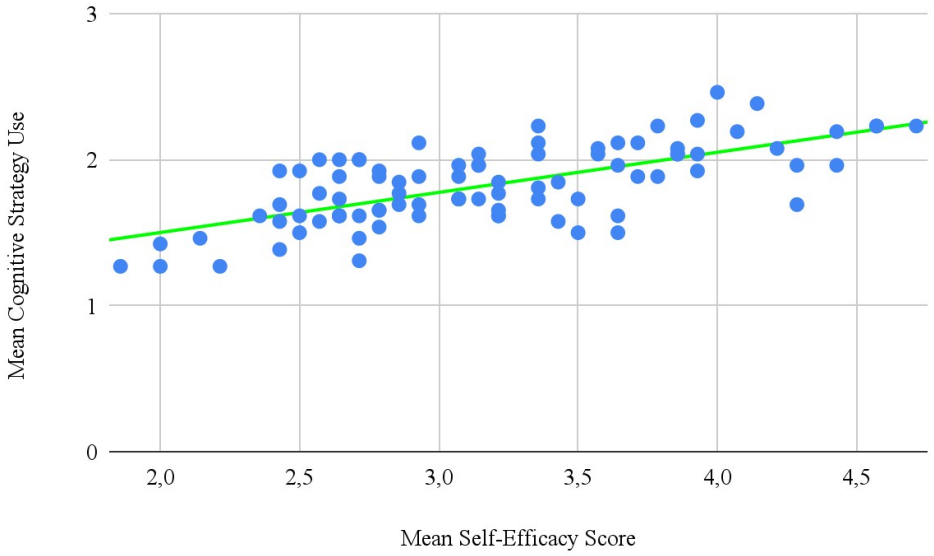


Figure 13. Scatterplot of the correlation between cognitive strategy use and self-efficacy (highest correlation).

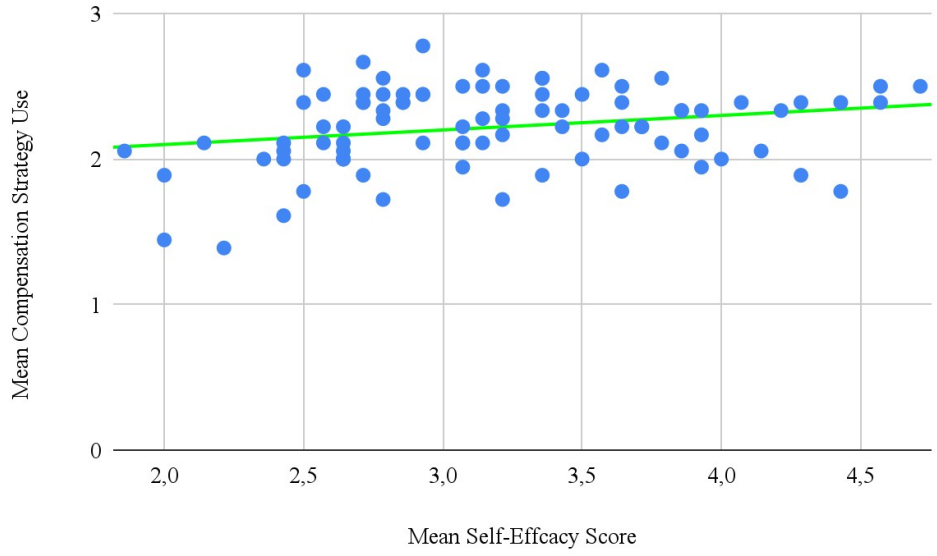


Figure 14. Scatterplot of the correlation between mean compensation strategy use and self-efficacy (lowest correlation).

Overall, the results indicate that students' self-efficacy is positively associated with the use of all five major strategy types. However, the strength of the association varies substantially across categories, with self-efficacy exerting the greatest influence on Cognitive and Metacognitive strategies, and a comparatively weaker effect on Social, Memory, and Compensation strategies, as illustrated in Figure 18.

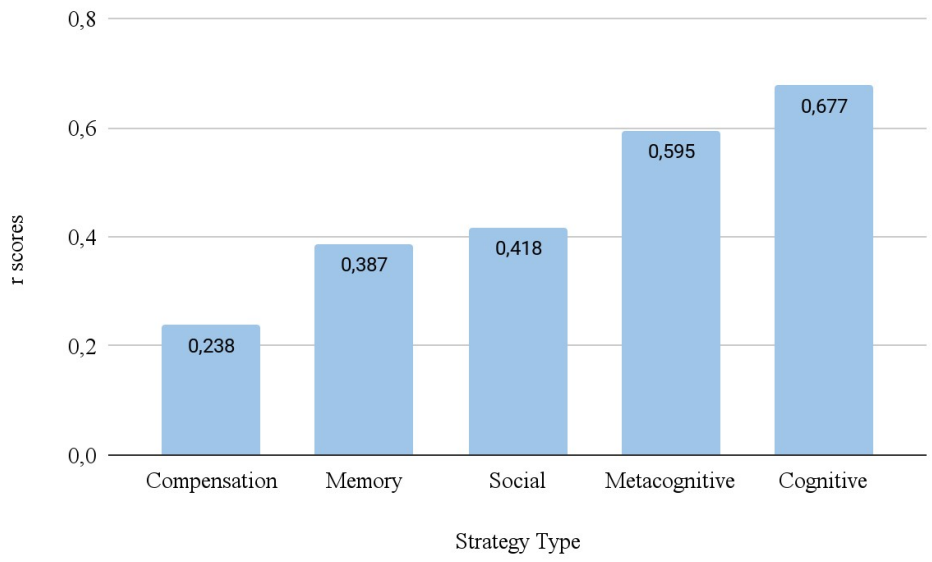


Figure 18. Bar plot of correlation coefficients (r scores) for the five strategy categories in relation to self-efficacy.

5.5 Summary of Findings

This chapter provided an overview of students' self-efficacy (measured on a 1-5 scale) and reported use of LLSs (measured on a 1-3 scale). Descriptive statistics (Section 5.1) showed moderate self-efficacy (M = 3.186, SD = 0.652) and relatively limited overall language strategy use (M = 1.926, SD = 0.223), with some variability among learners. Correlational analyses addressing RQ1 (Section 5.2) revealed a strong positive relationship between overall self-efficacy and overall strategy use ($r = 0.625$, $p < .001$). Skill-specific correlations (Section 5.3), the results for RQ2, were significant across all four language skills, strongest for Listening ($r = 0.575$) and weakest for Speaking ($r = 0.351$). Regarding RQ3 (Section 5.4), self-efficacy was positively

associated with all five strategy categories, Metacognitive *(r* = 0.595), Cognitive (*r* = 0.677), Memory (*r* = 0.387), Social (*r* = 0.418), and Compensation (*r* = 0.238), with the strongest links for Cognitive and Metacognitive strategies. Overall, these results indicate that higher self-efficacy predicts greater and more strategic engagement, both across skills and strategy types.

Chapter 6 - Discussion

This chapter brings together the quantitative results and the theoretical perspectives outlined in the previous chapters, examining how self-efficacy and LLSs interact in the specific context of lower-secondary EFL learners examined in this study. The discussion is organised into four main sections. Section 6.1 explores the overall patterns observed in the data, highlighting discrepancies between learners' perceived self-efficacy and their actual strategic behaviour across the four language skills. Particular attention is given to the surprising gap between high self-efficacy in reading and low strategy use, as well as the opposite pattern in speaking. Section 6.2 revisits the receptive-productive distinction by focusing on the skills that showed the strongest efficacy-strategy links. Listening emerged as the most consistent domain of alignment, while writing occupied an unexpectedly prominent position among productive skills, prompting a reconsideration of how task characteristics and classroom scaffolding shape these relationships. Section 6.3 moves from skills to strategy categories, tracing learners' developmental preferences in a clear hierarchy, from the most frequently used compensation strategies, followed by social and memory strategies, to the less common cognitive strategies and the still emerging metacognitive ones, highlighting how increasing strategic sophistication aligns with higher self-efficacy. Section 6.4 integrates these findings into a broader pedagogical perspective, drawing out implications for classroom practice and suggesting ways teachers can foster both self-efficacy and strategic development across skills and strategy types. Finally, Section 6.5 offers a critical discussion of the study's limitations and outlines avenues for future research. Overall, these sections synthesise the findings into a coherent interpretation, situating the observed relationships between self-efficacy and strategy use within wider theoretical frameworks on strategic development and autonomous language learning.

6.1 The gap between perceived self-efficacy and strategy use across skills

The first research question (RQ1) explored the overall relationship between students' self-efficacy and their use of LLSs. The analysis revealed a strong, statistically significant positive correlation (see Appendix C), indicating that learners with higher self-efficacy reported greater overall strategy use, while those with lower self-efficacy tended to employ strategies less frequently. This result aligns with much of the previous literature (e.g., Chamot and O'Malley, 1987; Oxford, 1990), which has consistently identified self-efficacy as a motivational factor supporting more frequent and varied strategic engagement.

While RQ1 confirmed the general association between the two constructs, it did not account for how this relationship might differ across individual skills. Learners' beliefs about their abilities and their strategic engagement in language learning are related but do not always align, particularly in younger learners. This relative misalignment became the focus of the second research question (RQ2), which examined the correlations between self-efficacy and strategy use across the four main language skills: listening, reading, writing, and speaking. As expected, listening demonstrated the highest correlation, confirming previous findings on the role of self-efficacy in receptive skills. However, an interesting pattern emerged during the preliminary analysis of the correlational data. Specifically, students reported the highest self-efficacy in reading and the lowest in speaking, yet strategy use was greatest in speaking and lowest in reading. This unexpected divergence between perceived competence and strategic engagement merits focused discussion.

The contrast between perception and behaviour aligns with theoretical perspectives on SRL (Zimmerman, 2000). According to Oxford (1990) and Chamot and O'Malley (1987), learners' beliefs about their abilities can motivate strategic engagement, but strategy use is not solely determined by confidence. Empirical studies support the view that learners often intensify strategy use in domains perceived as challenging, thereby employing strategies as compensatory mechanisms. For instance, Vandergrift (1997) observed that EFL learners increase strategic effort in speaking and

listening when confronted with greater difficulty or lower confidence. Similarly, Schunk and DiBenedetto (2020) emphasise that self-efficacy interacts with motivation and strategic choices, particularly in contexts where learners encounter perceived gaps between ability and task demands. In the present study, speaking appears to function as such a compensatory domain: students' lower self-efficacy in speaking coincides with higher strategic engagement. On the contrary, higher confidence in reading is associated with lower strategy use.

Several factors may contribute to this pattern. From a developmental perspective, the participants, aged 11-13, are still acquiring the cognitive and metacognitive capacities necessary for effective self-monitoring and strategic planning. It is worth noting that, as discussed in Section 3.1, previous research has consistently found positive correlations between self-efficacy and LLS use. However, most of the literature explored here involved older learners, typically university students or adolescents with more advanced self-regulatory skills, whereas the present study focuses on lower-secondary learners. The relative immaturity of metacognitive and self-regulatory capacities in this younger cohort may therefore explain why perceived competence does not consistently translate into strategic action, highlighting a developmental nuance to our knowledge lacking in most prior investigations. As a result, the participants in this study may not exhibit full alignment between perceived competence and strategy use.

Motivational aspects further explain the observed discrepancy. The case of reading offers a clear example of this misalignment. Despite reporting the highest levels of self-efficacy, students engaged the least in strategy use in this domain. This suggests that confidence may diminish the perceived need for deliberate strategic engagement, in line with motivational theories of effort allocation (Schunk and DiBenedetto, 2020). This pattern also reflects what Chamot and O'Malley (1994) described as a "threshold effect": once learners reach a certain comfort level in a skill, their reliance on conscious strategies tends to diminish. Differently, insecurity in speaking may encourage learners to seek strategies independently to manage the task. In line with Oxford (2016), the transferability and retention of strategies are often constrained by weak metacognitive

awareness or low self-efficacy; learners who doubt their ability to apply a strategy effectively are less likely to adopt or transfer it to new tasks, even when it has proved useful previously. Together, these developmental and motivational considerations highlight how self-efficacy, while potentially supporting strategy use, may also hinder it when learners' metacognitive skills are still emerging.

Additionally, the observed discrepancy underscores the task-specific nature of self-efficacy. As previous studies have shown (e.g., Wang & Pape, 2005; Vandergrift, 1997), learners' confidence can vary considerably across different language domains, meaning that high self-efficacy in one skill, such as reading, does not automatically transfer to another skill, like speaking. This task-specificity appears particularly pronounced in younger learners, whose developing self-regulatory capacities limit their ability to generalise confidence across skills.

Developmental and motivational constraints interact with instructional practices, resulting in students' strategic behaviour being strongly shaped by classroom routines and teacher-led practices rather than by independent planning or monitoring. In the observed context, as in many lower-secondary EFL classrooms (Abdulrazzaq, 2023), much of the English curriculum is organised in a progression that prioritises listening (through teacher talk and comprehension exercises), and writing (through workbook tasks and homework), followed by reading, with relatively little time allocated to speaking. This aligns with findings in the WTC literature, which indicate that limited classroom interaction and peer engagement can constrain both perceived communicative competence and strategy use (Yashima, 2002; Khajavy et al., 2016). This imbalance can contribute to lower self-efficacy in speaking, as learners have fewer chances to experience success and develop automaticity in productive oral tasks (Kormos & Dörnyei, 2004; MacIntyre & Charos, 1996). Moreover, oral production, unlike reading, is time-pressured and cognitively demanding, requiring the simultaneous coordination of lexical retrieval, grammatical encoding, and phonological articulation (Chamot and O'Malley, 1987). These factors make speaking the most vulnerable domain for younger learners, where low self-efficacy is to be expected. Nevertheless,

the data indicate that learners respond to this challenge by employing compensatory strategies, such as rehearsal, self-correction, or reliance on formulaic language (Oxford, 1990; Vandergrift, 1997). However, the link between these efforts and self-beliefs remains weak: strategies are applied, but they do not necessarily lead to greater confidence, partly because the immediacy of oral interaction leaves little time for reflection or reinforcement of success. Conversely, reading tasks are typically frequent and highly scaffolded in the classroom context, allowing students to experience success without the need for overt strategic effort. Reading practice in the classroom can thus reinforce self-efficacy for that domain, allowing learners to approach tasks with confidence and requiring fewer compensatory strategies (Pajares, 2003; Bandura, 1997).

Critically, the present findings also reflect the limited self-regulatory capacity of the sample. It is therefore appropriate to retrieve Oxford (2016) citation already presented in Section 3.1, which notes that "proactive self-regulators maintain self-efficacy beliefs (perceived competence) and establish a productive learning environment" (p. 71), typically engaging in metacognitive strategies such as planning, monitoring, and evaluating their learning processes. In the context of the current study, however, the participants have not yet fully developed these capacities. Their ability to monitor, plan, and adjust strategic behaviour remains emergent, partially explaining the observed misalignment between perceived competence and actual strategy use. The combination of developmental immaturity and limited metacognitive skills suggests that self-efficacy alone, although present, does not consistently translate into deliberate or effective strategic action in speaking, potentially resulting in inconsistent, compensatory or domain-specific behaviours (Oxford, 2016; Vandergrift, 1997). Consequently, younger learners may rely on ad hoc strategies in response to perceived task difficulty, rather than exhibiting the proactive, metacognitively guided regulation characteristic of older or more advanced learners. This tendency aligns with recent SRL research, which highlights the dynamic interaction between motivational beliefs, self-efficacy, and strategy use: without sufficiently developed regulatory skills, learners' confidence may be inconsistently applied across domains (Panadero, 2017; Zimmerman & Schunk, 2011).

The concept of Willingness to Communicate (WTC) in MacIntyre, Clément, Dörnyei, & Noels (1998; see Section 2.3) further elucidates the interplay between self-efficacy and strategy use. Within this framework, self-efficacy operates as a proximal antecedent of WTC: learners who believe in their communicative ability are more inclined to participate in oral interaction, even in anxiety-inducing or unpredictable settings. For the participants in this study, lower self-efficacy in speaking likely suppresses spontaneous WTC, prompting reliance on compensatory strategies to navigate oral tasks. In this sense, the low self-efficacy reported in speaking among the present sample can be seen as closely tied to heightened levels of apprehension, consistent with Krashen's (1982) affective filter hypothesis, which posits that anxiety can inhibit language acquisition and performance. As noted in Section 3.1, weak efficacy beliefs and foreign language anxiety (FLA) often reinforce one another (MacIntyre & Gardner, 1991a; MacIntyre, 2007), creating conditions in which learners hesitate to speak even when they possess the necessary knowledge. For these 11–13-year-old students, compensatory strategies such as rehearsal, memorisation of formulaic expressions, or self-correction may thus serve a dual purpose: they compensate for perceived linguistic gaps while simultaneously enabling participation despite communicative anxiety. Conversely, higher self-efficacy in reading allows learners to approach tasks confidently, reducing the need for additional strategic intervention. This developmental, emotional, and motivational interplay helps explain the gap between perceived competence and strategic behaviour observed in the sample, showing that strategy use depends not only on self-efficacy and emerging self-regulatory abilities but also on learners' emotional responses and willingness to communicate in oral interactions.

To conclude, in this study, the combined developmental, motivational, emotional, and instructional factors interact to produce a divergence between perceived self-efficacy and actual strategy use in young EFL learners. Reading and writing provide counterpoints that reveal the limitations of assuming linear relationships: self-efficacy may diminish the need for strategies in one case, while effortful strategy

use may fail to strengthen self-efficacy in another. This complex interplay suggests that pedagogical interventions should not merely promote uniform strategy use but should also take into account how learners' beliefs, developmental readiness, and the cognitive and affective demands of each skill influence the degree to which strategies and self-efficacy support each other. This insight not only enriches the interpretation of the present data but also sets the stage for the subsequent chapters, which focus on skill-specific correlations (6.2) and strategy type preferences (6.3).

6.2 Revisiting receptive-productive distinctions: the prominence of listening and the unexpected role of writing

The correlational analyses conducted to address RQ2 revealed patterns that invite a reconsideration of how receptive and productive skills interact with self-efficacy and strategy use in the case of younger EFL learners. As reported earlier, listening emerged as the skill with the strongest correlation between self-efficacy and learning strategy use, followed by writing, reading, and speaking. To avoid redundancy, the specific dynamics of reading and speaking, where the gap between beliefs and behaviours was most evident, have already been examined in Section 6.1 and will only be briefly referenced here. The discussion below, therefore, focuses primarily on the prominence of listening as the most consistent domain of alignment, and on the unexpected position of writing within this younger cohort.

At first glance, these findings may seem to align with long-established assumptions in SLA research that receptive skills, being more input-oriented, are particularly sensitive to learners' beliefs about their capabilities (Bandura, 1997; Vandergrift, 1997). By contrast, productive skills are generally expected to show weaker correlations between self-efficacy and strategy use. Several factors contribute to this expectation. First, productive tasks, especially speaking, are constrained by time and demand the concurrent management of several cognitive processes, including the retrieval of vocabulary, the formulation of syntax, and phonological articulation (Chamot and O'Malley, 1987). Under these conditions, learners often experience high

cognitive load, leaving less attentional space for the deliberate application of strategies (MacIntyre & Gardner, 1991a). Second, productive tasks expose learners more directly to evaluation, heightening anxiety and performance pressure (MacIntyr & Gardner, 1991a), which can disrupt the alignment between confidence and strategic behaviour. Third, while receptive tasks allow for covert processing and incremental comprehension, productive tasks typically demand visible output, making learners more vulnerable to self-doubt when their efficacy beliefs are fragile. These features together have led scholars to assume that productive domains are less conducive to a stable, positive correlation between self-efficacy and strategy use. However, the relative prominence of writing, a productive skill, in showing a stronger correlation than reading is less intuitive and requires deeper analysis.

To fully understand these results, it is necessary to consider not only the correlations themselves but also the mean values of self-efficacy and strategy use for the two skills under examination (see Appendix D). Listening showed moderate self-efficacy and relatively low strategy use, yet the strength of the correlation suggests that students who feel more confident in their listening ability are also those who most consistently adopt strategies. Writing, on the other hand, was associated with comparatively high self-efficacy and similarly high strategy use, suggesting that this productive domain, despite its generative demands, fosters a relatively balanced interaction between perceived competence and strategic engagement.

From a receptive-productive perspective, the data both confirm and challenge existing theoretical assumptions. The prominence of listening fits established claims that receptive comprehension, particularly in a foreign language, requires complex inference, monitoring, and compensation, all of which are strongly mediated by learners' confidence in their abilities (Vandergrift, 1997). In other words, without a sense of efficacy, learners may not invest in the effortful strategies needed to sustain attention, identify key information, or make meaning from partial input. This interpretation aligns with Oxford's (1990) observation that skilled listeners rely on a coordinated orchestration of strategies such as prediction, verification, and evaluation to

cope with the ephemeral and transient nature of auditory input. The strong correlation observed here supports this view: among these learners, self-efficacy in listening appears to be a powerful driver of strategic engagement. Moreover, it resonates with Bandura's (1997) framework, which posits that efficacy beliefs directly influence the amount of effort individuals invest in a task and their persistence when confronted with difficulty. Listening, often underestimated as a passive skill in traditional pedagogy (Brown, 2007), emerges here as an active, strategy-intensive domain where efficacy beliefs and strategy use mutually reinforce one another.

By contrast, the role of writing is more surprising. Despite the general expectation that productive skills align less strongly with self-efficacy, writing in this sample demonstrated a robust correlation. One plausible explanation lies in the nature of the skill itself. Writing, although productive, allows more time for planning, revising, and monitoring: processes that are heavily strategy-dependent and align with learners' sense of control. From a cognitive processing perspective, writing involves a deeper level of elaboration and organisation than receptive tasks (Oxford, 1990). Learners can pause, reflect, and apply strategies such as brainstorming, translation, or drafting, which in turn reinforce the link between their belief in their ability and their observable behaviour. In this sense, writing can be considered a "time-available" productive skill, in contrast to the "time-pressured" nature of speaking. This reflective nature makes writing an arena where strategy use and efficacy beliefs can converge, particularly when tasks are scaffolded through textbook exercises and homework activities that provide tangible opportunities to apply strategies and receive feedback.

Research consistently shows that writing self-efficacy is a strong predictor of performance. Pajares and Valiante (1997) found it to be the most influential motivational factor for writing competence in upper-elementary learners, even more than self-concept or prior achievement. This suggests that writing occupies a distinctive role among language skills, with efficacy beliefs playing a particularly central part in sustaining strategy use. The present findings fit this developmental pattern: learners'

confidence in writing supports systematic strategy application, confirming that writing is especially responsive to self-efficacy rather than representing an anomaly.

The argument gains further support from self-regulatory perspectives. Writing is especially responsive to strategy instruction and metacognitive training, since learners can monitor their progress through the visible products of their effort (Zimmerman & Risemberg, 1997). In this sense, the skill provides direct feedback loops that allow self-efficacy beliefs to be reinforced or adjusted. Oxford (1990) and Cohen (1990) likewise emphasise that writing offers fertile ground for the deliberate application of strategies such as planning, drafting, revising, and self-correction, each of which requires and strengthens learners' confidence in their capacity to manage the task. Taken together, these perspectives show that writing's stronger correlation with self-efficacy is not only explicable but also consistent with prior findings, provided that one accounts for its reflective and strategic affordances.

Learners aged 11–13 are still consolidating their metacognitive regulation, and in the observed school context, curricular practices emphasise listening and writing over speaking and reading. In line with Bandura's (1997) model, repeated and scaffolded tasks with feedback build self-efficacy by providing concrete evidence of competence. Listening activities often include pre-, while-, and post-listening phases that model metacognitive strategies and allow for immediate reinforcement, while writing generates observable products (drafts, revisions, teacher comments) that make regulatory processes visible and traceable (Zimmerman & Risemberg, 1997). Both skills thus support a virtuous cycle of strategy use, feedback, and growing self-efficacy. By contrast, reading and especially speaking provide less immediate or transparent feedback, so strategies in these domains tend to serve more compensatory functions without equally enhancing efficacy beliefs (Wang, Zhang & Davis, 2025).

Moreover, the organisation of teaching resources, such as textbooks, homework, and classroom assessments, tends to privilege formats that facilitate guided learning in listening, reading and writing (Draughn, Cárcamo & Tamburini, 2025). Instructional materials often provide sequences of progressive tasks, practice exercises, and

evaluative rubrics that simplify the internalisation of strategic procedures; teachers, in turn, model and reinforce the use of these strategies during lessons (Chamot 2009; Oxford, 2016). For learners aged 11-13, who are still in the process of developing metacognitive awareness, this external scaffolding is crucial: it makes strategy use less dependent on autonomous awareness and more reliant on structured contexts that guide strategic behaviour. As a result, the observed correlation reflects not only an internal tendency but also the effect of systematic opportunities provided by the school environment.

Taken together, these results suggest that the receptive-productive distinction cannot be treated as a rigid predictor of the relationship between self-efficacy and strategy use. While listening confirms the theoretical expectation of a strong efficacy-strategy link in receptive skills, writing demonstrates that a productive skill can equally foster such alignment when the task structure allows for planning, monitoring, and feedback. Reading shows that high self-efficacy does not always promote strategy use, and speaking illustrates that high strategy use does not necessarily bolster efficacy when emotional and cognitive constraints intervene.

In conclusion, the correlational findings invite a nuanced view of receptive-productive distinctions in younger EFL learners. Rather than a simple dichotomy, the data highlight the interaction of task characteristics, developmental stage, and classroom ecology in shaping how self-efficacy and strategy use align across skills. Listening emerges as the prototypical *efficacy-sensitive* skill, fully consistent with theoretical expectations. Writing, by contrast, occupies a less expected position: although productive in nature, it displays a robust efficacy-strategy link that mirrors findings in prior research (Pajares & Valiante, 1997). This suggests that its prominence is not an anomaly, but rather an indication that productive domains, under conditions of scaffolding and feedback, can also become *efficacy-sensitive*. Beyond this empirical contribution, the findings also carry pedagogical implications: by providing comparable mastery experiences and scaffolded feedback in speaking activities, educators could

foster a similarly strong self-efficacy–strategy link, underscoring the decisive role of instructional design in shaping efficacy-sensitive learning domains.

6.3 Cognitive and metacognitive strategies: developmental preferences and implications

The findings related to Research Question 3 (RQ3) provide valuable insights into the relationship between self-efficacy and the categories of LLSs. Descriptive analyses revealed that students reported relying most frequently on compensation strategies, followed by social strategies and memory strategies, whereas cognitive and metacognitive strategies were used least frequently (see Appendix E). This pattern may be explained by the nature of compensation strategies themselves, which allow learners to cope with immediate gaps in linguistic knowledge or skills. Such strategies, often involving guessing, using synonyms, or gesturing to convey meaning, are relatively easy to implement, require less cognitive effort than systematic practice or planning, and provide quick, tangible results in communicative situations. For learners in early adolescence, who are still consolidating higher-order cognitive and metacognitive abilities, compensation strategies may represent an efficient and practical way to maintain participation and achieve communicative success, even when full comprehension or production is not yet possible. As observed in Section 6.1, this group of students often rely on numerous strategies to manage tasks where their self-efficacy is lower, particularly in oral production. This *macro-level* compensatory mechanism mirrors, at a *micro-level*, their preference for the compensation category and may help to explain why these strategies are the most frequently reported despite their weaker correlation with self-efficacy.

Social strategies, such as asking peers for clarification, cooperating in pair or group activities, or seeking feedback from teachers, were the second most frequently reported, which may be attributed to their inherently interactive nature. For early adolescents, social interaction provides a relatively low-risk, motivating, and immediately rewarding way to engage with the language. Additionally, the frequent use

of social strategies complements the pattern observed with compensation strategies. By interacting with peers or seeking teacher support, learners can obtain immediate guidance, reduce cognitive load, and gain affective reassurance, particularly in situations where their self-efficacy is lower. This reinforces the idea that, at this developmental stage, adolescents rely on strategies that provide both practical solutions to linguistic challenges and emotional support, highlighting a broader preference for externally scaffolded or collaborative approaches alongside compensatory tactics.

As for memory strategies, despite not being the most frequently employed, their moderate correlation with self-efficacy suggests that, when engaged, they may afford learners a tangible sense of progress and mastery over linguistic material. Although less immediately rewarding or socially mediated than compensation and social strategies, memory strategies nonetheless complement the broader repertoire of strategies employed by adolescents.

This distribution suggests a preference for strategies that allow learners to cope with immediate linguistic difficulties or to draw on interaction with peers, rather than those requiring sustained regulation or systematic engagement with language input. However, the correlational results offer a more nuanced perspective. While compensation strategies were the most frequently employed, they displayed the weakest association with self-efficacy. By contrast, cognitive strategies showed the strongest correlation with self-efficacy, followed closely by metacognitive strategies. These findings indicate that learners with higher levels of self-efficacy are not simply those who make greater use of compensatory tactics or social interaction, but rather those who engage more actively in deeper processing of linguistic material (through practice, analysis, or transformation) and in regulating their learning processes. At first glance, the prominence of cognitive strategies may seem to diverge from much of the literature, which has traditionally underscored the role of metacognitive strategies in supporting self-regulation and self-efficacy (Oxford, 2016; Chamot, 2009). Yet this apparent discrepancy can be interpreted in light of the developmental stage of participants.

As lower-secondary school students, they are still in the process of consolidating higher-order cognitive skills such as systematic self-monitoring and abstract self-assessment. Metacognitive strategies, considering their very nature, require a level of reflection and abstraction that may not yet be fully accessible to learners in early adolescence. Cognitive strategies, in contrast, involve more concrete and directly observable actions, such as repetition, note-taking, or reorganising input, that yield immediate and visible outcomes. Success in these activities provides learners with tangible evidence of progress, which can contribute to reinforcing their self-efficacy beliefs and may help explain the observed correlation. As mentioned in Section 4.3.1, this interpretation resonates with Piaget's view of cognitive development: students in this age range are typically transitioning from concrete operational to formal operational thinking (Piaget, 1972). Although Piaget's framework provides a useful lens, more contemporary approaches highlight the importance of social and cultural mediation in cognitive development (Lantolf & Thorne, 2006; Swain et al., 2015), as well as insights from neurocognitive research on adolescence that emphasise the gradual maturation of executive functions and self-regulatory abilities (Steinberg, 2005; Casey et al., 2010). As such, they are only beginning to reflect on internal states and abstract concepts like self-regulation, which explain why metacognitive strategies, while correlated with self-efficacy, remain less frequently used. In this developmental phase, self-efficacy is anchored more strongly to visible and immediate outcomes rather than to abstract processes of autoregulation. The developmental interpretation is further supported by the pattern of results across categories.

While metacognitive strategies till exhibit a robust association with self-efficacy, their lower mean frequency suggests that many learners may not yet employ them consistently. This reflects a transitional stage: students who are beginning to integrate planning and evaluation into their learning show stronger self-efficacy, but for the majority, such strategies are less habitual than more accessible cognitive approaches. In other words, metacognitive strategies are emerging as markers of more advanced learners, while cognitive strategies appear to serve as a primary means of reinforcing self-efficacy for some students. Comparative evidence from studies with university students supports this developmental interpretation. In older and more experienced

learners, metacognitive strategies often emerge as the strongest predictors of self-efficacy, reflecting their greater ability to plan, monitor and evaluate their learning processes in a systematic way (e.g., Ahmadian & Ghasemi, 2017; Montaño-González & Cancino, 2020; Abraha & Teka, 2017; Zahidi & Ong, 2023; Cai & Zhao, 2023). The contrast between adolescents and university learners may reflect a developmental trajectory: cognitive strategies appear to dominate as correlates of self-efficacy in early stages of scholastic growth, while metacognitive strategies tend to gain prominence as learners mature cognitively and acquire more refined regulatory skills. However, further longitudinal research would be required to confirm this pattern. From an educational standpoint, these findings highlight both strengths and areas for development. On the one hand, the strong link between self-efficacy and cognitive strategies underscores the importance of fostering effective, concrete learning techniques that provide adolescents with immediate feedback and reinforce their confidence. On the other hand, teachers should introduce metacognitive skills gradually through guided practices such as learning diaries, structured self-assessments, or reflection tasks, so that students can slowly build up the ability to regulate their own learning (Chamot & Harris, 2019).

Moreover, it is worth noting that the relationship between strategy use and self-efficacy is not only developmentally but also contextually shaped. In the present study, participants were given relatively little autonomy in their learning environment, with most tasks being highly structured and teacher-directed. Such conditions may have limited students' opportunities to experiment with metacognitive strategies that require initiative, reflection, and independent planning, among other factors. This lack of autonomy may help explain why metacognitive strategies, though correlated with self-efficacy, were the least frequently reported. At the same time, the limited opportunity for independent learning may have encouraged students to rely more on others, such as peers and teachers, to scaffold their learning, seek guidance, and gain reassurance. Consequently, this context likely contributed to the relatively high frequency of use of social strategies observed in the sample, complementing the compensation strategies in supporting learners' engagement and success. In this sense, the results echo Little (2007), who emphasises that the development of learner

autonomy is a precondition for the flourishing of metacognitive engagement. Had the participants been granted more opportunities for autonomous learning, it is plausible that they would have been able to exercise greater initiative in self-regulating their own learning. The teacher-centred model of instruction thus appears to have reinforced reliance on concrete cognitive strategies while constraining the emergence of more abstract forms of regulation.

Finally, the aggregated results conceal important individual differences within the sample. While the mean frequency of metacognitive strategies was relatively low, closer examination shows that students with higher self-efficacy were more likely to make consistent use of such strategies. Specifically, among the 89 participants, 10 students scored above 4 on the mean self-efficacy scale (1-5). Of these, only 2 reported a mean frequency of metacognitive strategies below the group average (1.706 vs. 1.814), whereas the remaining 8 displayed average frequencies equal to or above 2. This indicates that within the same cohort, learners follow heterogeneous pathways: some continue to rely primarily on cognitive strategies, while others with higher self-efficacy are already integrating metacognitive approaches more systematically. Such subgroup variability underscores the limitation of interpreting only mean scores, as these can obscure significant differences in strategy adoption and the developmental trajectory of self-regulatory skills.

Put differently, the data highlight that cognitive strategies serve as the principal vehicle of efficacy-building for some students, whereas for others, higher self-efficacy is already facilitating the emergence of more advanced, self-regulatory behaviours, reflecting individualised learning pathways within this group of learners. Cognitive strategies thus provide an accessible bridge between effort and confidence, whereas metacognitive strategies constitute a potential area of growth that, if nurtured, could foster a more autonomous and resilient sense of self-efficacy within the observed context and developmental stage.

6.4 Educational implications

The patterns that emerged in this study with the specific participants involved invite a series of reflections on how language teaching can more effectively support learners' development of both strategies and self-efficacy. Considering first the asymmetries between skills identified in Section 6.1, it is evident that reading and speaking require particularly careful pedagogical attention. Reading appeared as the skill in which students felt most confident, yet this confidence did not translate into frequent strategy use. This suggests that learners may interpret comprehension in reading as a relatively automatic process, underestimating the value of deliberate strategies. From a pedagogical standpoint, this indicates the importance of fostering metacognitive awareness in reading tasks. Teachers should help learners reflect not only on *what* they read, but also on *how* they read it. Introducing guided questioning, annotation tasks, or think-aloud protocols could cultivate habits of planning and monitoring, ensuring that high self-efficacy translates into more strategic engagement. For example, teachers might propose that students within this study's sample keep a short *reading log* after each text, in which they list the strategies they consciously applied (e.g., predicting, skimming, summarising) and evaluate which of them proved most useful. Another practical activity could involve dividing the class into small groups, assigning each a specific strategy to apply to the same text, and then comparing outcomes collectively; this would make visible the added value of different approaches. As Oxford (1990; 2016) emphasised, making strategy use visible and explicit is essential for learners to internalise it and connect it to their sense of competence.

Speaking presented the opposite scenario: here students reported low self-efficacy but compensated with an intense use of strategies, particularly compensation and social ones. This paradox indicates that students are aware of their difficulties and attempt to cope actively, but their reliance on immediate tactics prevents the consolidation of more enduring confidence. Pedagogical intervention should therefore aim to create situations in which speaking becomes less threatening and more conducive to mastery experiences. One possibility is to design cyclical oral activities that allow learners to rehearse, receive constructive feedback, and repeat the task under

progressively less scaffolded conditions. Recording these performances and letting students observe their own improvement over time can make progress visible, thereby reinforcing their belief in their own capacity to speak effectively. Teachers could also incorporate a *record and reflect* activity, where students record a short monologue on a familiar topic at the beginning of a unit and again at the end, then compare the two versions with the teacher's guidance, identifying improvements in fluency, pronunciation, or lexical range. This kind of evidence makes growth tangible and directly supports efficacy beliefs. Moreover, explicitly teaching affective strategies such as positive self-talk, relaxation techniques, or peer encouragement can help lower anxiety and create an emotional climate in which efficacy beliefs are more likely to grow. For example, at the start of an oral activity, the teacher might invite learners to write down a short motivational sentence (e.g., "I can explain my ideas even if I don't know every word") and repeat it silently before speaking; such rituals can reduce performance anxiety. Here again, the focus is not merely on improving oral accuracy, but on creating mastery experiences in Bandura's (1997) sense: situations in which learners see their own progress and reinterpret speaking as a controllable task rather than an intimidating challenge.

In contrast, listening and writing emerged as domains in which self-efficacy and strategy use were more closely aligned, as highlighted in Section 6.2. This convergence suggests that these skills benefited from a structure that supported both strategic behaviour and confidence-building. Listening activities, often divided into pre-, while-, and post-listening phases, provided learners with clear entry points and opportunities to confirm comprehension. Writing tasks, by producing tangible texts that could be revised and improved, offered concrete evidence of progress. Both situations exemplify how instructional design can create mastery experiences that strengthen efficacy beliefs. Teachers could extend these practices by ensuring that learners always have opportunities to monitor their own improvement. In listening, for instance, they could encourage students from this study's sample to reflect on how many details they understood before and after a second listening. A very practical technique is the use of a *listening checklist* where learners tick off whether they managed to catch the main idea,

specific details, or inferences, and then compare their two attempts; this shows in a visual way the progress achieved. In writing, structured revision workshops could guide students to identify specific aspects of their text that improved after peer or teacher feedback. For example, students could be asked to highlight in one colour the sentences they changed after feedback, and in another colour the new vocabulary they introduced. These practices not only reinforce strategies but also cultivate the perception that effort leads to measurable progress. The findings of this study therefore confirm what Bandura (1997) theorised: mastery experiences, when made visible and explicit, are the most powerful source of efficacy beliefs. This alignment shows how classroom design can translate theoretical constructs into daily pedagogical practices, turning abstract principles of SCT into lived experiences for learners.

The pedagogical implications of this listening-writing convergence also extend to skills that currently show less balance. Speaking, for example, could be taught following a structure similar to listening: preparation phases to anticipate content, supported production phases, and reflective phases to evaluate performance. For reading, teachers could encourage students to keep short reading logs or annotated notes, allowing them to revisit previous entries and observe their own improvement in comprehension and analytical skills over time. By borrowing structural principles from listening and writing, teachers can make all skills equally *efficacy-sensitive*, ensuring that strategy use and confidence support one another across the board. This integration of practices represents one of the original contributions of the present study. It suggests that effective pedagogical formats can be transferred across skills and that adapting scaffolding principles helps rebalance mismatches between self-efficacy and strategy use. In doing so, it challenges the traditional separation of skills in textbooks and curricula and promotes a more integrated, cross-skill pedagogy that values learners' beliefs as much as their abilities.

Beyond the skill dimension, the findings concerning strategy categories, discussed in Section 6.3, open further pedagogical considerations. In particular, memory strategies remained relatively infrequent despite their potential to support long-term retention of vocabulary and structures. Encouraging learners to integrate simple memory techniques, such as grouping new words into semantic categories, creating

mental images, or using mnemonic associations, could strengthen the link between effort and durable linguistic gains, thereby indirectly reinforcing efficacy beliefs (Oxford, 1990, 2016). Differently, the frequent use of compensation and social strategies shows that younger learners instinctively rely on tactics that help them participate even when their competence feels insufficient. While these strategies play an important role in lowering the threshold for communication, they appear insufficient for developing lasting confidence, as their correlation with self-efficacy was weaker. This suggests that teachers should validate these strategies as useful but also encourage learners to go further. For instance, a teacher might acknowledge the effectiveness of circumlocution during a speaking activity but then guide students toward expanding their vocabulary so that circumlocution becomes a temporary aid rather than a permanent solution. Similarly, social strategies such as asking peers for help could be paired with follow-up activities that encourage students to apply what they have learned independently, gradually reducing dependency. An example could be a *strategy transfer* exercise: after asking a peer for help with a word during an oral task, the student writes the new word in a personal vocabulary notebook and is later asked to reuse it in a short written text, thus transforming a social strategy into an individual learning gain. By reframing these initial strategies as transitional tools, pedagogy can explicitly support learners' movement from dependence to autonomy, a developmental trajectory consistently underlined in research on strategy instruction (Chamot & O'Malley, 1987; Chamot, 2009; Chamot & Harris, 2019; Oxford, 2001, 2016).

The stronger association between cognitive and metacognitive strategies and self-efficacy underscores their central role in building sustainable self-efficacy. In practice, this means that teachers should integrate explicit training in these strategies into everyday activities. Cognitive strategies such as summarising a listening passage, categorising new vocabulary, or making mental images of concepts can be modelled in class and then practised until they become habitual. Teachers might, for instance, give students a short listening passage and ask them to draw a simple diagram or mind map of the main ideas; this combines listening comprehension with cognitive transformation of input. Metacognitive strategies, though more complex, can be introduced gradually through tools adapted to the cognitive level of early adolescents. Simple learning

diaries, where students note what strategies they used and how effective they felt, or self-assessment checklists completed at the end of a unit, can make learners more aware of their own regulation processes. For instance, a diary entry could include three prompts: “Today I used the strategy of…”, “It helped me because…”, “Next time I want to try…”. Such scaffolding makes reflection accessible even to younger learners. The teacher’s role is crucial here: by making strategy use explicit, by praising not only correct answers but also effective approaches, and by creating space for reflection, educators can help students link strategic behaviour with a growing sense of competence. In this sense, the present findings reinforce the view that metacognitive awareness is a decisive factor in sustaining motivation and autonomy (Chamot, 2009; Oxford, 2016), and they show that such awareness can and should be cultivated even at an early stage. Framed this way, the development of metacognitive skills is not only a question of immediate classroom success but also of preparing learners for lifelong learning, a goal that connects strategy instruction with broader educational aims.

Altogether, these implications suggest a developmental pathway that teachers can support: learners initially rely on compensation and social strategies, which make communication possible and reduce anxiety. As they gain more experience, they can be guided toward cognitive strategies that deepen their engagement with the material. Finally, with maturity and appropriate scaffolding, they can begin to adopt metacognitive strategies that allow them to monitor and regulate their learning autonomously. Making this progression explicit in the classroom, and providing activities that nurture each stage, would not only enhance learning outcomes but also strengthen students’ belief in their ability to take charge of their language learning. What is particularly innovative in this study is the finding that even students with lower overall self-efficacy already show a readiness to engage with cognitive strategies; this suggests that pedagogy can capitalise on this developmental stage to accelerate the shift toward more sophisticated forms of self-regulation. Such insights point to a rethinking of curricular sequencing: rather than waiting for maturity to introduce higher-order strategies, teachers can anticipate this process, scaffolding students into autonomy earlier than traditional approaches might predict.

6.5 Study limitations

Despite the richness of these pedagogical insights, the study also presents clear limitations that must be acknowledged. The research was conducted in a single school context, where teaching was strongly teacher-centred and opportunities for learner autonomy were relatively limited. These contextual characteristics, specific to the study's participants, may have shaped the results, particularly the modest presence of metacognitive strategies, which often flourish in environments that promote independent learning. The reliance on self-report questionnaires introduces another limitation, as students' accounts of their strategy use and efficacy beliefs may not fully reflect their actual behaviour and may be influenced by social desirability bias. While the instruments employed were validated, complementary methods such as classroom observation, learning diaries, or think-aloud protocols would provide a fuller picture of how the two variables interact in practice. Future research could therefore combine quantitative and qualitative approaches to triangulate data and capture the complex interplay between perception and behaviour.

Furthermore, the study's cross-sectional design prevents the traceability of developmental trajectories. Although the findings suggest that cognitive strategies currently serve as the main bridge between strategic effort and efficacy beliefs, and that metacognitive strategies are emerging among higher-efficacy learners, only longitudinal research could confirm whether this pathway unfolds systematically across time. The sample size was also relatively small (89 students), and its distribution unbalanced, with three second-year and three third-year classes but only one first-year class. This limits the statistical strength of subgroup analyses and makes it difficult to generalise conclusions across grade levels and to broader populations. Moreover, affective strategies were not investigated, leaving an area of potential relevance unexplored, particularly given their role in managing emotions, anxiety, and motivation in language learning. Finally, the age group investigated, early adolescents, presents specific developmental characteristics that may not apply to older or younger learners. Differences in cognitive maturity, motivation, and autonomy mean that the results cannot be transferred uncritically to other contexts. Therefore, the educational

implications presented here should be interpreted cautiously when applied to students beyond this study's sample. Nevertheless, these very limitations open stimulating avenues for further investigation. Future research could explore whether explicit metacognitive training at earlier stages might accelerate the developmental progression suggested by the present results. Linking studies more directly with classroom experimentation would thus strengthen the bridge between empirical findings and pedagogical practice. Studies with larger and more diverse samples, longitudinal designs that track learners' trajectories, and mixed methods that capture both perceptions and actual behaviours would allow a fuller understanding of how self-efficacy and strategy use co-evolve and how pedagogy can best support this process.

The present findings, however, suggest practical directions for teachers. These include fostering a balance between self-efficacy and strategy use in skills with the greatest gaps between perception and practice, extending efficacy-sensitive approaches to all skill areas, and supporting learners in progressing from the most frequently used to less commonly employed strategy types. These are not abstract recommendations but practical suggestions that teachers can implement to foster both competence and confidence in their classrooms. Moreover, they remind us that language teaching is not only about transmitting linguistic input but also about shaping learners' beliefs, emotions, and self-regulatory capacities.

Beyond the immediate context of this study, these findings contribute to a broader reflection on curriculum design in foreign language education: equipping students with strategies that actively reinforce their self-beliefs is not only essential for immediate classroom performance but also for nurturing lifelong autonomous learners who approach new linguistic challenges with confidence and resilience. However, their applicability to learners with different characteristics, contexts, or ages should not be assumed without further investigation. Seen from this perspective, the educational implications extend far beyond a single school setting, positioning self-efficacy and strategy instruction as foundational pillars of modern language pedagogy.

CONCLUSION

The present study set out to investigate the interplay between self-efficacy and LLSs among lower-secondary EFL learners, with particular attention to differences across language skills and strategy types. The research involved a sample of 89 students aged approximately 11 to 13, with English proficiency ranging from A1 to A2 according to the CEFR, attending a traditional lower-secondary school environment in Padua, Italy. To investigate the research objectives, two adapted instruments were employed: an adaptation of the *Language Strategy Use Survey* (Oxford, Cohen, & Chi, 2002) to measure learners' strategy use, and a self-efficacy questionnaire adapted from Wang, Kim, Bai, and Hu (2014) to assess perceived self-efficacy in language learning. The research was guided by three primary objectives: first, to examine the overall relationship between learners' self-efficacy and their use of LLSs; second, to explore how this relationship manifests across the four principal language skills, namely listening, reading, writing, and speaking; and third, to analyse the association between self-efficacy and distinct categories of strategies, including cognitive, metacognitive, memory, social, and compensation strategies. These objectives were operationalised through three corresponding research questions and hypotheses, which anticipated positive correlations between self-efficacy and strategy use, albeit with variability depending on skill type and strategy sophistication.

The findings of this study provide nuanced insights into these relationships, confirming some expectations while revealing unexpected patterns that contribute to a more differentiated understanding of young EFL learners' strategic behaviour. First, as hypothesised, a significant positive correlation was observed between overall self-efficacy and total strategy use, demonstrating that learners with higher confidence in their language abilities tend to report greater engagement in strategic behaviours. This result aligns with theoretical frameworks proposed by Oxford (1990) and Chamot and O'Malley (1987), supporting the view that self-efficacy acts as a motivational driver for strategic engagement.

However, the skill-specific analyses revealed a more complex picture. As initially expected, the alignment between perceived self-efficacy and strategy use was not uniform across skills. While listening emerged as the domain with the strongest correlation, reading, despite eliciting the highest self-efficacy ratings, registered the lowest strategy use, whereas speaking exhibited the opposite pattern, with low self-efficacy and relatively high strategy engagement. These divergences highlight the importance of developmental, motivational, and task-related factors in shaping learners' strategic behaviours. Specifically, the data suggests that early adolescents often employ strategies compensatorily in domains where they feel less confident, as seen in speaking, whereas high perceived competence in domains such as reading can reduce the perceived need for deliberate strategic action. These findings corroborate theoretical assumptions from SRL (Zimmerman, 2000) and the notion of a *threshold effect* described by Chamot and O'Malley (1994), whereby learners' reliance on conscious strategies diminishes once a certain level of confidence is achieved.

The unexpected prominence of writing among productive skills, however, partly complicates the initial hypothesis, providing further evidence of the complex interaction between task characteristics, strategy use, and self-efficacy. Although productive domains are generally expected to display weaker correlations with self-efficacy due to cognitive load and performance anxiety, writing in this cohort showed a robust correlation. This result can be attributed to the reflective, "time-available" nature of writing, which allows learners to plan, revise, and monitor their performance, processes that are inherently strategy-intensive and conducive to reinforcing efficacy beliefs. In contrast, speaking constrained by time pressure and immediate cognitive demands, appears more vulnerable to low self-efficacy, despite high strategy engagement. The results therefore challenge a simplistic receptive-productive dichotomy, emphasising instead the interplay of developmental readiness, instructional scaffolding, and task affordances in determining how self-efficacy and strategy use align.

The analysis of strategy categories further illuminates developmental patterns in early adolescents' strategic preferences.Compensation strategies were the most frequently employed, followed by social and memory strategies, whereas cognitive and metacognitive strategies were less commonly used. These results confirm the hypothesis

that self-efficacy is differentially associated with specific strategy categories. However, although the initial hypothesis for RQ3 predicted that metacognitive strategies would show the strongest positive correlation with self-efficacy, the findings indicate that cognitive strategies exhibited the strongest association, with metacognitive strategies closely following. This pattern suggests that learners with higher self-efficacy engage more actively in deep processing and self-regulation, whereas those with lower self-efficacy rely primarily on more immediate, externally supported strategies. This developmental interpretation is consistent with Piagetian and contemporary socio-cultural perspectives, which posit that early adolescents are still consolidating higher-order cognitive and metacognitive abilities, and with neurocognitive research highlighting the gradual maturation of executive functions (Steinberg, 2005; Casey et al., 2010). Consequently, cognitive strategies function as an accessible bridge between effort and confidence at this stage, while metacognitive strategies represent an area with significant potential for growth, fostering the development of more autonomous learning behaviours. Individual differences within the sample further underscore heterogeneous learning trajectories, with higher-efficacy students already integrating metacognitive strategies more consistently, highlighting the importance of tailoring pedagogical interventions to support diverse developmental pathways.

From a pedagogical perspective, the study's findings carry important implications. First, instructional design should consider the skill-specific discrepancies between self-efficacy and strategy use. In reading, fostering metacognitive awareness through guided reflection, annotation, or strategy-focused activities can help translate high confidence into more deliberate strategy engagement. In speaking, creating low-anxiety, mastery-oriented opportunities through rehearsal, feedback, and reflective practices can strengthen both strategy use and efficacy beliefs. Listening and writing illustrate the benefits of structured tasks that provide clear opportunities for monitoring, feedback, and strategy application, highlighting the potential for transferring efficacy-supportive instructional principles across skills. Second, the developmental trajectory of strategy use suggests that learners can be guided from reliance on compensation and social strategies toward cognitive and, ultimately, metacognitive

strategies, with scaffolding tailored to their cognitive maturity and self-regulatory abilities. Simple interventions, such as learning diaries, self-assessment checklists, or short reflective exercises, can foster metacognitive engagement even in early adolescence, supporting both immediate performance and long-term autonomous learning.

Nevertheless, several limitations constrain the generalisability of the findings. The study was conducted in a single teacher-centred school context, with relatively limited opportunities for learner autonomy. The reliance on self-report questionnaires may have introduced social desirability bias, and the cross-sectional design prevents tracing developmental trajectories. Furthermore, affective strategies were not investigated, leaving an area of potential relevance unexplored. Future research could address these limitations by incorporating classroom observations, longitudinal designs, and mixed-methods approaches to capture the dynamic interaction between self-efficacy and strategy use over time, across different contexts and age groups. Specifically, longitudinal studies could examine whether the observed progression from compensation and social strategies to cognitive and metacognitive strategies represents a systematic developmental pathway. Intervention studies could further explore how structured metacognitive training and efficacy-sensitive instructional designs accelerate learners' self-regulatory development and confidence.

In sum, this study offers both theoretical and practical contributions. Theoretically, it reinforces the relevance of self-efficacy as a motivational and regulatory factor in strategic language learning while highlighting the nuanced, domain-specific, and developmental nature of this relationship in early adolescents. Practically, it provides concrete guidance for teachers seeking to foster balanced, skill-sensitive, and developmentally appropriate strategy instruction, emphasising the importance of scaffolding, feedback, and reflective practice. Ultimately, the findings suggest that the integration of self-efficacy enhancement and strategy instruction is not merely beneficial for immediate classroom outcomes but constitutes a foundational component of developing autonomous, confident, and resilient language learners

capable of managing future learning challenges independently. The study thus closes by positioning self-efficacy and strategic development as mutually reinforcing pillars of effective language pedagogy, while leaving open the prospect for further research to explore, refine, and extend these insights in diverse educational settings.

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Appendices

The following Appendices provide supplementary materials and detailed data supporting the analyses reported in this thesis.

Appendix A presents the complete Self-Efficacy Questionnaire administered to the participants, while Appendix B contains the full Language Learning Strategies Use Questionnaire. Appendix C offers an overview of the overall dataset used to address Research Question 1 (RQ1). Appendix D reports the correlational statistics between self-efficacy and LLS use across language skills (RQ2), and Appendix E presents the correlations by strategy type (RQ3).

Note: Tables reproduced in Appendices C-E are shown for illustrative purposes only and may be of reduced quality. Full-resolution, easily readable versions are available via the provided link, where it is also possible to access the cells and view the formulas used to calculate these results:
https://docs.google.com/spreadsheets/d/1WzOnBoej7mXsvPgPKwMOmcVsUe-rXgPtGm--3-G58xw/edit?usp=sharing

Appendix A - Self-Efficacy Questionnaire

Nome: _____
Classe: _____

QUESTIONARIO SULL' **AUTOEFFICACIA**

Car* student*,
Ti chiedo di collaborare a questi questionari, che fanno parte di uno studio incentrato sull'uso di strategie e sulle convinzioni di autoefficacia adottate da studenti di inglese.

Istruzioni: *Leggete attentamente le seguenti domande e valutate la vostra attuale padronanza dell'inglese. Utilizzate la scala indicata di seguito e contrassegnate con un segno di spunta "X" la casella che rappresenta esattamente le vostre capacità.*
Queste domande sono state concepite per misurare il vostro giudizio sulle vostre capacità, quindi state tranquilli: non ci sono risposte giuste o sbagliate.
Se non capite qualche domanda, chiedete immediatamente all'insegnante.

Scala di giudizio

1 — 2 — 3 — 4 — 5

"Per niente sicuro"	"Poco sicuro"	"Abbastanza sicuro"	"Molto sicuro"	"Completamente sicuro"

Domande relative all'autoefficacia in inglese	**Risposte**				
1. Quanto ti senti sicur* nel comprendere storie raccontate (a voce) in inglese?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
2. Quanto ti senti sicur* nello svolgere correttamente i compiti di inglese da solo?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
3. Quanto ti senti sicur* a guardare un video in inglese e capire di cosa parla?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
4. Quanto ti senti sicur* a capire cosa dice l'insegnante quando parla in inglese in classe?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente

1

5. Quanto ti senti sicur* a usare un'app o un gioco in inglese?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
6. Se l'insegnante ti chiede di scrivere delle frasi in inglese, quanto ti senti sicur* nel farlo?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
7. Quanto ti senti sicur* a fare una presentazione orale in inglese davanti alla classe?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
8. Quanto ti senti sicur* nel chiacchierare in inglese con i tuoi compagni su argomenti come scuola, hobby o sport?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
9. Quanto ti senti/sentiresti sicur* nel capire il significato di una canzone inglese che ti piace, se puoi leggerne il testo?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
10. Quanto ti senti sicur* nel leggere numeri oltre 100 in inglese (es. 387)?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente

11. Quanto ti senti sicur* nel creare frasi con parole nuove che hai appena imparato? (es.: Hai imparato *big* e sai scrivere la frase *"The house is big"*)	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
12. Quanto ti senti sicuro del tuo livello di inglese in generale?	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
13. Quanto ti sentiresti sicur* nel raccontare la tua giornata in inglese all'insegnante o ad un tuo compagno? (es.: "*I usually wake up at 7. I have breakfast with milk and biscuits…")*	1 per niente	2 poco	3 abbastanza	4 molto	5 completamente
14. Quando devi svolgere un compito in inglese, come ti senti?	Molto nervos*, penso che sbaglierò molto e questo mi blocca	Nervos*, ho paura di sbagliare, ma ci provo comunque	Neutr*, né preoccupat* né sicur*	Abbastanza sicur*, so che potrei sbagliare, ma non mi preoccupa troppo	Molto sicur*, penso che andrò bene

3

Appendix B - Language Learning Strategy Use Questionnaire

QUESTIONARIO SULL'USO DI **STRATEGIE linguistiche – 1^ PARTE**

adattato da A. D. Cohen, Rebecca L. Oxford e Julie C. Chi

Questo questionario ti aiuterà a capire quali strategie usi quando impari l'inglese.

Alcune strategie potresti usarle spesso, altre magari non le hai mai provate. Non ci sono risposte giuste o sbagliate! Ti chiedo solo di rispondere con attenzione, perché le tue risposte sono molto importanti per questo studio.

Non si tratta di una verifica e nessuno verrà valutato. Quindi rilassati e rispondi in modo sincero, pensando a come studi e usi l'inglese nella vita di tutti i giorni.

Le affermazioni in questo questionario sono organizzate in gruppi. Leggi la descrizione delle strategie in ogni categoria e, per ogni strategia, segna nella colonna di destra la tua risposta:

1 = Uso questa strategia e la trovo utile.
2 = Ho provato questa strategia, ma mi piacerebbe approfondirla.
3 = Non ho mai provato questa strategia.

LISTENING
Utilizzo di strategie per il listening (ascolto)

Strategie che uso per ascoltare di più la lingua inglese: 1. Cerco occasioni fuori dalla scuola per ascoltare persone che parlano in inglese (ad esempio eventi, incontri, attività).	**1**	**2**	**3**
2. Provo ad ascoltare podcast, guardare serie TV o film in inglese.	**1**	**2**	**3**
3. Se sono in un bar o ristorante all'estero, provo a fare domande in inglese per esercitarmi ad ascoltare.	**1**	**2**	**3**
4. Se sento parlare in inglese in pubblico, cerco di capire il senso generale della conversazione.	**1**	**2**	**3**
Strategie che uso per familiarizzare con i suoni dell'inglese: 5. Mi esercito a pronunciare i suoni dell'inglese finchè sono in grado di pronunciarli al meglio.	**1**	**2**	**3**
6. Cerco di collegare il suono di una nuova parola inglese con una parola che già conosco in un'altra lingua (es. italiano, tedesco, francese, etc.).	**1**	**2**	**3**
7. Provo a imitare il modo in cui parlano le persone madrelingua.	**1**	**2**	**3**
8. Se sento un suono nuovo, cerco di ricordarlo e magari più tardi chiedo a un insegnante di ripeterlo.	**1**	**2**	**3**
Strategie che uso per capire meglio l'inglese nelle conversazioni: ***Prima di ascoltare:*** 9. A volte decido di prestare particolare attenzione a come il parlante pronuncia determinati suoni.	**1**	**2**	**3**
10. Spesso mi "preparo" prevedendo cosa dirà il parlante in base a quello che ha già detto.	**1**	**2**	**3**

11. Se so che ascolterò una persona parlare in inglese (ad esempio un insegnante ospite), provo a informarmi prima sull'argomento.	**1**	**2**	**3**
Durante l'ascolto: 12. Cerco di individuare quali sono le parole chiave per capire il senso del discorso.	**1**	**2**	**3**
13. Presto attenzione a quali parole e frasi vengono dette con più enfasi dal parlante madrelingua/dalla professoressa.	**1**	**2**	**3**
14. Presto attenzione a dove arrivano le pause tra le frasi e quanto durano.	**1**	**2**	**3**
15. Ascolto la "musicalità" della lingua inglese, cioè come la voce sale e scende quando le persone parlano.	**1**	**2**	**3**
16. Faccio lo '*skim listening*', ossia ascolto prestando attenzione ad alcune parti e ignorandone altre per capire il significato generale.	**1**	**2**	**3**
17. Provo a capire senza tradurre parola per parola in italiano.	**1**	**2**	**3**
18. Di solito presto attenzione al contesto della conversazione per capire meglio.	**1**	**2**	**3**
19. Cerco di ascoltare dettagli specifici nel discorso per vedere se riesco a capirli.	**1**	**2**	**3**
Se non capisco qualcosa o la maggior parte di ciò che viene detto in inglese: 20. Chiedo alla persona che parla (es. prof, compagno) di ripetere se non ho capito bene.	**1**	**2**	**3**
21. Se la persona parla troppo velocemente per me, chiedo di rallentare.	**1**	**2**	**3**
22. Chiedo un chiarimento se non capisco un concetto al primo ascolto.	**1**	**2**	**3**
23. Uso il tono di voce dell'altra persona come indizio per cercare di capire il significato.	**1**	**2**	**3**
24. Faccio ipotesi sull'argomento di cui si sta parlando basandomi su quello che è già stato detto.	**1**	**2**	**3**
25. Uso le mie conoscenze generali per cercare di capire l'argomento.	**1**	**2**	**3**
26. Osservo i gesti e il linguaggio del corpo e le espressioni (sorride, sembra arrabbiat*) della persona che parla per avere più indizi sul significato di ciò che sta dicendo.	**1**	**2**	**3**

VOCABULARY
Utilizzo di strategie per il vocabolario

Per memorizzare nuove parole in inglese: 27. Presto attenzione alla struttura generale o alla struttura di una parte della nuova parola.	**1**	**2**	**3**
28. Spesso per capire il significato di una parola la divido anche in parti.	**1**	**2**	**3**

29. Raggruppo le parole in base alla loro funzione, come verbi, nomi o aggettivi.	**1**	**2**	**3**
30. Associo il suono della nuova parola a quello di una parola che conosco già.	**1**	**2**	**3**
31. A volte uso delle rime per ricordare nuove parole.	**1**	**2**	**3**
32. Visualizzo un'immagine mentale della nuova parola per ricordarmi il suo significato.	**1**	**2**	**3**
33. A volte imparo una nuova parola mettendola insieme ad altre parole che riguardano lo stesso argomento.	**1**	**2**	**3**
34. Scrivo quasi sempre la nuova parola inserendola in una frase che abbia un significato per me.	**1**	**2**	**3**
35. A volte metto in pratica verbi d'azione (es. *swim, run, drink*...) facendone i gesti.	**1**	**2**	**3**
36. Uso delle schede (flash cards) per memorizzare le parole nuove.	**1**	**2**	**3**
Per ripassare il vocabolario inglese: 37. All'inizio mi ripeto più e più volte i vocaboli per essere sicuro di saperli.	**1**	**2**	**3**
38. Ogni tanto torno a rivedere le parole che ho imparato in passato per rinfrescarmi la memoria.	**1**	**2**	**3**
Per ricordare il vocabolario inglese: 39. Quando non ricordo una parola, cerco di pensare alla parte della parola che mi è familiare.	**1**	**2**	**3**
40. Cerco di ricordare in quale situazione ho sentito o visto quella parola, magari anche dove l'ho letta o vista.	**1**	**2**	**3**
41. A volte visualizzo la scrittura (lo spelling) della parola nella mia mente.	**1**	**2**	**3**
Per utilizzare i nuovi vocaboli inglesi che ho appena imparato: 42. Uso le parole appena imparate per vedere se riesco a farle funzionare in modo sensato.	**1**	**2**	**3**
43. Li abbino a parole che già conosco per creare nuove frasi.	**1**	**2**	**3**
44. Mi sforzo per usare espressioni idiomatiche (frasi tipiche) in inglese.	**1**	**2**	**3**

Nome: _____
Classe: _____

QUESTIONARIO SULL'USO DI **STRATEGIE linguistiche – 2^ PARTE**

adattato da A. D. Cohen, Rebecca L. Oxford e Julie C. Chi

Questo questionario ti aiuterà a capire quali strategie usi quando impari l'inglese.

Alcune strategie potresti usarle spesso, altre magari non le hai mai provate. Non ci sono risposte giuste o sbagliate! Ti chiedo solo di rispondere con attenzione, perché le tue risposte sono molto importanti per questo studio.

Non si tratta di una verifica e nessuno verrà valutato. Quindi rilassati e rispondi in modo sincero, pensando a come studi e usi l'inglese nella vita di tutti i giorni.

Le affermazioni in questo questionario sono organizzate in gruppi. Leggi la descrizione delle strategie in ogni categoria e, per ogni strategia, segna nella colonna di destra la tua risposta:

1 = Uso questa strategia e la trovo utile.
2 = Ho provato questa strategia, ma mi piacerebbe approfondirla.
3 = Non ho mai provato questa strategia.

SPEAKING
Utilizzo di strategie per lo speaking (parlato)

Per esercitarmi a parlare in inglese: 45. A volte ripeto delle nuove espressioni a me stess* per esercitarmi e fare pratica.	**1**	**2**	**3**
46. Provo a usare nuove strutture grammaticali in diverse situazioni per vedere se mi sento sicur*.	**1**	**2**	**3**
47. Mi chiedo come una persona madrelingua inglese direbbe qualcosa, e cerco di dirlo nel suo stesso modo.	**1**	**2**	**3**
Per partecipare a conversazioni in inglese: 48. Cerco regolarmente persone con cui posso parlare in inglese.	**1**	**2**	**3**
49. Mi esercito in conversazioni in inglese ogni volta che posso.	**1**	**2**	**3**
50. Cerco di indirizzare la conversazione verso argomenti di cui conosco il vocabolario.	**1**	**2**	**3**
51. Di solito pianifico in anticipo quello che voglio dire.	**1**	**2**	**3**
52. Spesso faccio domande (in inglese) per essere sicuro/a di seguire la conversazione.	**1**	**2**	**3**
53. Cerco di anticipare cosa dirà l'altra persona (es. compagno, professoressa) in base a quello che ha già detto finora.	**1**	**2**	**3**
54. Di solito evito argomenti di cui non conosco il vocabolario.	**1**	**2**	**3**
55. Spesso chiedo agli altri di correggere i miei errori quando parlo e apprezzo il loro feedback.	**1**	**2**	**3**

7

56. Uso spesso espressioni che richiedono conoscenze sia linguistiche che culturali, come chiedere qualcosa, scusarmi o lamentarmi in inglese.	**1**	**2**	**3**
57. Se non so come elaborare un'espressione culturale in inglese, ad esempio scusarmi, a volte chiedo alla professoressa come si dice.	**1**	**2**	**3**
<u>Quando non mi viene in mente come dire una parola o un'espressione:</u> 58. Spesso chiedo alla persona con cui sto parlando di aiutarmi.	**1**	**2**	**3**
59. Cerco un altro modo per esprimere l'idea, ad esempio uso un sinonimo o descrivo l'idea o l'oggetto di cui voglio parlare.	**1**	**2**	**3**
60. A volte uso parole della mia lingua, ma aggiungo vocali o consonanti in modo che sembrino parole inglesi.	**1**	**2**	**3**
61. Occasionalmente mi invento parole nuove se non conosco quelle giuste.	**1**	**2**	**3**
62. Quando necessario, uso i gesti per esprimere il significato di quello che voglio dire.	**1**	**2**	**3**
63. Mi capita di tornare a parlare in italiano per qualche secondo, se so che anche il mio interlocutore capisce l'italiano.	**1**	**2**	**3**

READING
Utilizzo di strategie per il reading (lettura)

<u>Per quanto riguarda le mie abitudini di lettura in inglese:</u> 64. Mi impegno a leggere molto in inglese.	**1**	**2**	**3**
65. Spesso leggo in inglese perché mi fa piacere.	**1**	**2**	**3**
66. Mi impegno a trovare materiale di lettura che sia al mio livello o quasi.	**1**	**2**	**3**
<u>Come strategie di lettura di base:</u> 67. Spesso prima pianifico come leggere un testo, poi nel mentre monitoro come sta andando la lettura e infine controllo quanto ho capito.	**1**	**2**	**3**
68. Inizio con una lettura veloce di un testo lungo per avere un'idea generale, poi lo rileggo con più attenzione.	**1**	**2**	**3**
69. Di solito leggo una storia o un dialogo più e più volte fino a quando non lo capisco.	**1**	**2**	**3**
70. Spesso mi focalizzo su come è organizzato il testo e faccio attenzione ai titoli e sottotitoli.	**1**	**2**	**3**
71. Mi capita, mentre leggo il testo, di prendere degli appunti nella mia mente o ai margini del testo.	**1**	**2**	**3**
72. Di solito faccio delle previsioni su cosa succederà subito dopo quello che sto leggendo.	**1**	**2**	**3**

Quando incontro parole e strutture che non capisco: 73. Di solito cerco di indovinare il significato più probabile usando indizi dal contesto circostante.	**1**	**2**	**3**
74. Generalmente uso un dizionario per avere un'idea dettagliata di ciò che significano le singole parole.	**1**	**2**	**3**

WRITING
Utilizzo di strategie per il writing (scrittura)

Come strategie di scrittura di base: 75. Mi esercito a scrivere frasi semplici in inglese per migliorare la mia sicurezza nella scrittura.	**1**	**2**	**3**
76. Pianifico in anticipo come scrivere un testo, nel mentre monitoro come sta andando la scrittura e poi controllo quanto bene ho scritto ciò che volevo.	**1**	**2**	**3**
77. Mi impegno spesso a scrivere diversi tipi di testi in inglese (ad esempio email, pagina di diario, articolo di giornale).	**1**	**2**	**3**
78. Prendo spesso appunti in classe in inglese.	**1**	**2**	**3**
Mentre scrivo un testo in inglese: 79. Quando non riesco a pensare all'espressione corretta da scrivere, di solito trovo un altro modo per esprimere l'idea; ad esempio, uso un sinonimo o descrivo l'idea.	**1**	**2**	**3**
80. Quando scrivo un breve testo, è probabile che riveda le frasi che ho già scritto, prima di continuare a scrivere altre frasi.	**1**	**2**	**3**
81. Spesso uso materiali di riferimento come un dizionario (cartaceo o online) per aiutarmi a trovare o controllare parole in inglese.	**1**	**2**	**3**
82. Di solito aspetto a correggere il mio testo finché non ho scritto tutto ciò che volevo dire.	**1**	**2**	**3**
Una volta che ho scritto la brutta copia: 83. Spesso rileggo il testo (o le frasi) scritto una o due volte per migliorare il linguaggio e il contenuto.	**1**	**2**	**3**
84. Di solito cerco di avere un parere sulla mia produzione scritta, ad esempio chiedo alla professoressa di correggere il testo/l'esercizio dopo che l'ho finito.	**1**	**2**	**3**

TRANSLATION
Uso strategico della traduzione

Per migliorare l'apprendimento e l'uso dell'inglese: 85. Spesso pianifico ciò che voglio dire o scrivere nella mia lingua (es. italiano o altra) e poi lo traduco in inglese.	**1**	**2**	**3**
86. Tendo a tradurre nella mia lingua mentre leggo per mantenere il mio filo del discorso e per rendere il testo più comprensibile per me.	**1**	**2**	**3**

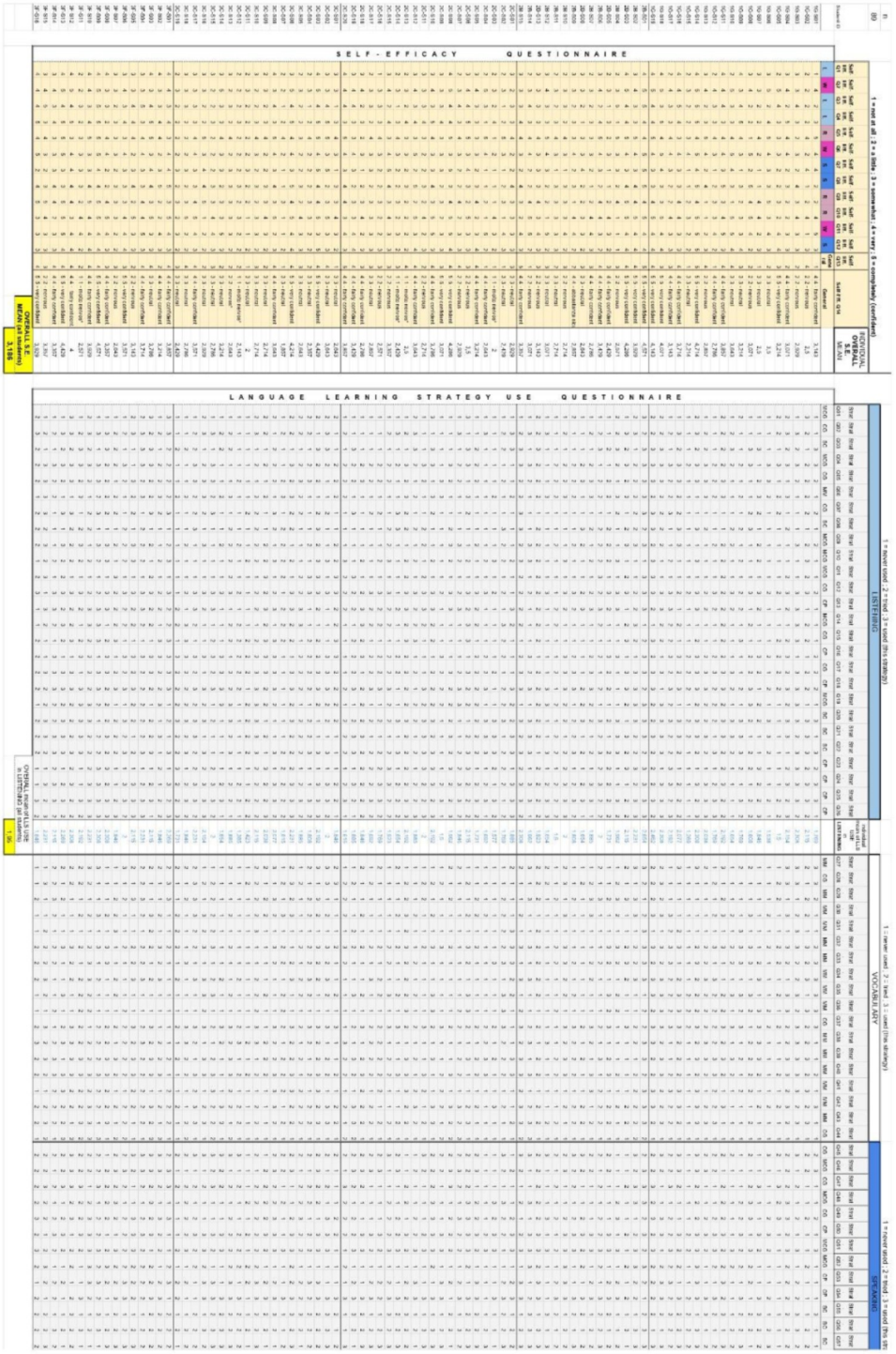
87. Mentre ascolto qualcuno parlare in inglese, spesso traduco parti di ciò che ha detto nella mia lingua per aiutarmi a memorizzare i concetti.	**1**	**2**	**3**
<u>Per lavorare direttamente con l'inglese il più possibile:</u> 88. Mi impegno il più possibile per mettere da parte la mia lingua (italiano o altra) e pensare solo in inglese.	**1**	**2**	**3**
89. Faccio tutto il possibile per comprendere ciò che ho sentito o letto senza tradurre parola per parola nella mia lingua.	**1**	**2**	**3**
90. Sono attent* a non trasferire sempre parole o concetti della mia lingua come se fossero uguali anche in inglese, perché potrebbero avere un significato diverso.	**1**	**2**	**3**

10

Appendix C - Overall Dataset (RQ1)

High-resolution version with formulas available at:

https://docs.google.com/spreadsheets/d/1WzOnBoej7mXsvPgPKwMOmcVsUe-rXgPtGm--3-G58xw/edit?usp=sharing



n tegy)

1 = never used ; 2 = tried ; 3 = used (this strategy)

89								READING											
Student ID	Strat. Q58	Strat. Q59	Strat. Q60	Strat. Q61	Strat. Q62	Strat. Q63	individual mean of LLS USE in SPEAKING	Strat. Q64	Strat. Q65	Strat. Q66	Strat. Q67	Strat. Q68	Strat. Q69	Strat. Q70	Strat. Q71	Strat. Q72	Strat. Q73	Strat. Q74	individual mean of LLS USE in READING
	CP	CP	CP	CP	CP	CP		MCG	CG	MCG	MCG	CG	CG	CG	CG	CG	CP	CG	
1G-S01	2	2	3	2	3	3	1,895	1	1	1	2	1	1	1	1	3	3	3	1,636
1G-S02	2	1	1	3	3	3	1,684	1	1	1	1	2	1	1	1	1	1	1	1,091
1G-S03	3	3	3	3	2	1	2,158	2	1	1	2	3	2	2	1	3	3	1	1,909
1G-S04	3	2	3	3	2	2	2,316	1	1	1	2	1	2	2	1	2	3	1	1,545
1G-S05	1	2	3	3	2	3	1,737	1	1	2	1	2	2	2	2	2	2	1	1,636
1G-S06	2	2	3	3	2	3	2	2	1	1	2	1	3	2	1	1	3	1	1,636
1G-S07	2	2	3	3	3	3	2,105	1	1	1	1	1	1	1	1	1	3	3	1,364
1G-S08	3	3	3	2	2	1	2,053	1	2	2	2	1	1	3	1	1	1	1	1,455
1G-S09	2	2	1	3	3	3	2,053	1	1	1	1	1	1	1	3	2	2	3	1,545
1G-S10	2	3	3	3	3	3	1,895	2	1	1	1	2	1	1	1	1	2	1	1,273
1G-S11	3	3	1	1	2	2	2,105	3	3	3	2	1	3	3	2	1	3	1	2,273
1G-S12	1	3	2	2	3	3	2,053	1	1	1	2	2	2	1	1	2	3	1	1,545
1G-S13	3	3	3	2	1	3	2,105	2	1	3	3	2	2	2	3	1	2	1	2
1G-S14	2	2	3	3	2	1	2,474	2	2	2	2	3	2	3	3	1	3	1	2,182
1G-S15	2	1	1	2	1	2	1,474	1	1	1	1	1	1	1	2	1	1	1	1,091
1G-S16	1	2	1	3	3	3	2,158	2	1	1	1	2	1	2	1	3	3	3	1,818
1G-S17	3	2	2	3	2	3	2,316	2	2	1	3	2	3	2	1	2	3	1	2
1G-S18	2	3	3	3	1	3	2,263	3	1	2	2	2	2	1	3	3	1	1	1,909
1G-S19	2	1	2	1	2	3	2,105	2	2	3	2	3	3	2	3	2	2	2	2,364
2B-S01	2	3	1	1	3	1	2,263	3	2	1	3	1	1	2	2	3	3	1	2
2B-S02	2	1	2	3	1	2	2,211	2	2	1	2	1	2	2	3	2	2	3	2
2B-S03	2	3	1	1	2	1	1,526	1	2	1	1	1	2	3	2	1	3	2	1,727
2B-S04	1	2	3	3	3	3	1,947	1	1	1	1	1	2	2	1	2	2	1	1,364
2B-S05	1	1	1	1	3	3	1,789	1	1	1	2	2	1	2	3	1	3	1	1,636
2B-S06	2	2	3	3	2	3	2,158	1	1	1	2	3	1	2	1	2	3	1	1,636
2B-S07	2	3	2	1	2	1	1,842	2	1	1	2	1	2	1	2	2	3	3	1,818
2B-S08	2	2	3	3	2	3	2,105	1	1	1	3	2	2	1	3	1	3	1	1,727
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2B-S11	2	1	3	3	2	3	1,895	1	1	1	2	1	1	1	1	1	1	2	1,182
2B-S12	1	3	2	3	3	3	2	1	1	1	2	2	2	3	3	1	3	1	1,818
2B-S13	3	3	2	2	1	3	2,368	2	1	3	2	3	2	2	3	3	2	2	2,273
2B-S14	3	3	1	1	3	1	2,211	3	1	2	3	1	3	3	1	1	2	2	2
2B-S15	1	3	3	3	3	1	2,158	2	1	2	1	3	3	2	3	2	2	2	2,091
2C-S01	3	2	1	2	3	3	2	1	1	1	3	3	3	3	2	2	2	1	2
2C-S02	2	3	3	2	3	2	2,211	2	1	1	2	2	1	1	1	2	1	2	1,455
2C-S03	3	1	3	3	1	3	1,895	1	1	1	1	1	1	1	1	3	1	1	1,182
2C-S04	1	1	3	3	3	3	1,737	1	1	1	1	1	3	1	3	3	3	1	1,727
2C-S05	2	3	3	2	3	2	2,316	2	2	1	1	2	1	2	1	1	2	1	1,455
2C-S06	2	3	3	3	3	3	2,526	2	1	2	1	2	1	2	1	1	3	1	1,545
2C-S07	1	2	2	2	1	3	2	2	1	2	2	2	1	1	1	1	2	1	1,455
2C-S08	2	3	3	3	2	3	2,105	1	1	1	1	1	1	1	1	1	3	2	1,273
2C-S09	2	3	3	1	1	2	2	1	1	1	2	1	2	2	2	1	3	1	1,545
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2C-S12	2	3	3	3	3	3	2,105	2	1	2	1	1	1	2	1	2	3	1	1,545
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2C-S14	1	1	1	2	3	1	1,842	2	3	1	1	3	3	1	2	1	1	1	1,727
2C-S15	2	3	3	2	3	3	2,316	2	1	1	2	2	2	2	1	2	3	1	1,727
2C-S16	2	2	2	1	2	2	1,842	1	1	1	2	2	2	2	3	2	3	2	1,909
2C-S17	2	3	3	1	2	3	2,053	1	1	1	2	2	2	2	3	2	3	1	1,818
2C-S18	3	3	3	3	2	3	2,316	2	1	1	1	1	1	1	2	1	2	1	1,273
2C-S19	3	3	2	2	3	1	2,158	3	1	1	1	3	2	1	1	1	3	1	1,636
2C-S20	2	3	2	2	2	3	2	1	1	1	2	3	3	2	3	3	3	1	2,091
3C-S01	2	1	3	3	2	3	1,789	2	1	1	1	2	1	2	1	1	2	2	1,455
3C-S02	3	3	1	1	2	2	2,158	1	3	2	1	1	1	1	1	1	2	3	1,545
3C-S03	1	3	1	2	1	3	2,105	3	2	2	2	3	1	1	3	1	3	2	2,091
3C-S04	1	3	3	3	1	1	1,895	2	1	1	2	1	2	1	1	1	2	2	1,455
3C-S05	3	2	2	3	1	1	1,947	2	1	3	2	1	2	1	1	1	2	1	1,545
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3C-S07	2	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	2	1	1,091
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3C-S09	2	2	2	2	2	3	2	1	1	1	1	2	2	2	2	1	2	2	1,545
3C-S10	2	3	3	3	3	3	2,368	2	1	2	2	2	2	2	2	2	2	2	1,909
3C-S11	2	1	1	2	2	1	1,421	1	1	2	1	1	1	2	2	1	1	2	1,364
3C-S12	3	2	3	3	3	3	2,158	1	1	1	2	2	2	1	1	1	2	1	1,364
3C-S13	2	2	3	3	3	3	2,316	2	1	2	2	3	3	2	2	2	2	2	2,091
3C-S14	3	3	3	3	3	3	2,421	1	1	2	2	1	1	2	1	1	3	1	1,455
3C-S15	1	3	2	2	2	3	2,263	1	1	1	1	2	2	2	2	1	3	1	1,545
3C-S16	3	3	3	1	3	3	2,316	1	1	1	3	2	2	3	2	1	3	1	1,818
3C-S17	3	3	3	3	3	3	2,211	2	2	2	2	1	1	2	2	1	3	2	1,818
3C-S18	1	1	1	1	2	3	1,684	2	1	1	2	1	1	2	1	1	2	1	1,364
3C-S19	1	2	1	2	2	2	1,526	1	1	1	2	1	1	2	2	1	2	1	1,364
3F-S01	3	3	2	2	2	2	2,105	2	2	1	2	1	2	1	1	3	3	1	1,727
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3F-S05	3	2	3	1	2	3	2,211	3	1	2	3	2	2	3	2	1	3	2	2,182
3F-S06	3	2	1	1	1	2	2	2	2	2	1	2	3	1	2	3	2	1	1,909
3F-S07	2	1	3	3	2	3	2,316	2	2	3	2	1	3	2	2	2	2	2	2,091
3F-S08	2	2	3	3	2	2	2	2	1	3	2	1	2	3	2	1	2	2	1,909
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3F-S10	1	3	1	1	3	1	2	2	3	3	3	2	3	1	2	3	3	1	2,364
3F-S11	3	2	3	3	2	3	2,211	1	2	3	3	2	3	2	2	2	3	2	2,273
3F-S12	2	3	2	1	2	2	2,158	3	3	2	2	1	2	1	2	1	2	3	2
3F-S13	1	3	1	1	2	1	1,684	3	3	3	2	2	1	2	1	2	1	3	2,091
3F-S14	2	3	2	2	3	3	2,053	1	1	1	2	2	2	3	2	2	2	2	1,818
3F-S15	2	1	2	3	2	1	2	2	2	2	3	2	3	1	3	1	2	2	2,091
3F-S16	2	3	2	1	2	2	2,053	2	2	2	2	3	3	1	2	1	3	3	2,182
					OVERALL mean of LLS USE in SPEAKING (all students)		2,075								OVERALL mean of LLS USE in READING (all students)				1,752

1 = never used ; 2 = tried ; 3 = used (this strategy)

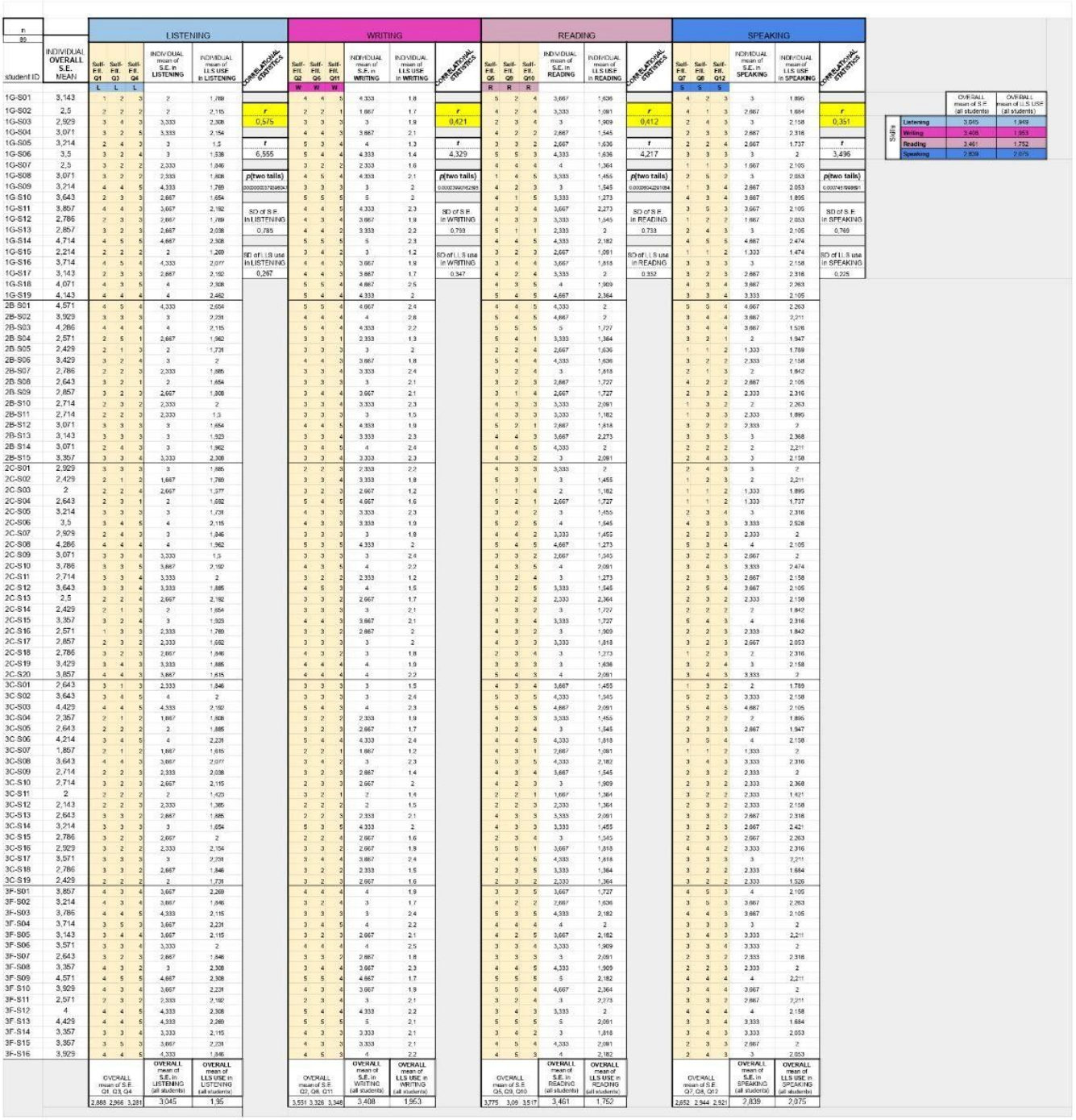
	WRITING											TRANSLATION						
Student ID	Strat. Q75	Strat. Q76	Strat. Q77	Strat. Q78	Strat. Q79	Strat. Q80	Strat. Q81	Strat. Q82	Strat. Q83	Strat. Q84	individual mean of LLS USE in WRITING	Strat. Q85	Strat. Q86	Strat. Q87	Strat. Q88	Strat. Q89	Strat. Q90	INDIVIDUAL OVERALL LLS USE - MEAN
	CG	MCG	CG	CG	CP	MCG	CG	MCG	CG	SC		PROD.	REC.	REC.	CG - PRO	REC.	CG - PRO	
1G-S01	2	1	1	2	3	1	3	3	1	1	1,8	2	3	3	1	1	2	1,856
1G-S02	2	3	1	1	1	1	2	3	2	1	1,7	1	2	1	2	1	2	1,811
1G-S03	2	3	1	1	3	3	1	1	3	1	1,9	2	3	1	2	1	3	2,2
1G-S04	3	2	1	1	3	2	3	1	2	3	2,1	3	3	3	1	1	3	2,144
1G-S05	1	1	1	1	1	1	2	1	3	1	1,3	3	3	3	1	1	1	1,567
1G-S06	2	1	1	1	2	1	3	1	1	1	1,4	2	2	1	1	2	1	1,578
1G-S07	1	2	1	1	1	1	3	2	1	3	1,6	1	2	2	1	1	1	1,756
1G-S08	1	3	1	3	3	1	3	3	1	2	2,1	2	2	2	3	1	3	1,878
1G-S09	1	1	1	1	3	3	3	2	2	3	2	3	3	3	2	1	2	1,867
1G-S10	1	2	1	1	1	3	3	3	3	2	2	3	3	1	2	2	3	1,722
1G-S11	3	2	1	2	3	2	3	2	3	2	2,3	2	1	2	2	2	2	2,122
1G-S12	1	3	1	1	3	1	3	3	2	1	1,9	3	2	3	2	2	2	1,9
1G-S13	2	3	1	2	3	2	1	3	2	3	2,2	3	3	2	1	2	2	2,044
1G-S14	2	3	1	2	2	3	3	1	3	3	2,3	2	3	3	2	2	3	2,3
1G-S15	2	1	1	1	1	1	2	1	1	1	1,2	2	1	1	1	1	2	1,267
1G-S16	1	1	1	1	3	3	3	2	2	2	1,9	3	2	2	1	2	3	2,056
1G-S17	3	1	1	2	2	2	1	2	1	2	1,7	3	2	2	2	2	2	2,089
1G-S18	3	3	1	2	3	2	3	2	3	3	2,5	3	3	2	2	3	1	2,3
1G-S19	2	2	1	2	2	3	3	2	2	1	2	3	3	2	2	2	2	2,209
2B-S01	3	2	2	2	3	3	1	3	3	2	2,4	3	3	3	3	2	3	2,433
2B-S02	3	3	2	2	3	2	3	2	3	3	2,6	3	3	2	3	3	2	2,211
2B-S03	2	2	1	2	3	3	1	2	3	3	2,2	2	1	2	3	3	2	1,856
2B-S04	2	1	1	1	1	2	2	1	1	1	1,3	2	1	1	2	1	3	1,722
2B-S05	2	3	1	1	2	1	3	3	2	2	2	3	2	2	1	1	1	1,767
2B-S06	2	2	1	1	2	2	1	2	2	3	1,8	2	2	2	1	2	3	1,878
2B-S07	2	3	3	1	3	3	3	2	1	3	2,4	2	3	2	3	2	2	1,944
2B-S08	3	3	1	2	2	1	3	2	2	2	2,1	3	2	2	1	2	2	1,756
2B-S09	2	3	1	3	2	2	3	2	2	1	2,1	3	2	2	1	2	2	1,9
2B-S10	3	3	1	2	3	3	3	2	2	1	2,3	3	2	3	1	2	2	2,122
2B-S11	1	1	1	2	2	1	2	2	1	2	1,5	2	2	1	1	1	1	1,511
2B-S12	1	1	1	1	3	3	3	2	2	2	1,9	2	3	1	1	3	2	1,722
2B-S13	3	2	2	2	3	2	3	2	2	2	2,3	2	2	2	1	2	2	2,056
2B-S14	3	2	3	1	3	3	3	2	3	1	2,4	3	3	3	2	3	2	2,122
2B-S15	3	3	1	1	3	3	3	2	3	1	2,3	3	3	3	2	1	2	2,211
2C-S01	2	3	1	2	3	3	1	3	3	1	2,2	3	2	3	1	1	2	1,944
2C-S02	2	1	2	1	2	1	2	3	2	2	1,8	3	2	3	2	1	2	1,878
2C-S03	1	1	2	1	1	1	1	2	1	1	1,2	3	3	1	1	2	1	1,522
2C-S04	1	1	1	3	2	2	1	3	1	1	1,6	1	3	1	1	1	3	1,633
2C-S05	2	3	1	2	2	3	2	3	3	2	2,3	3	2	2	2	2	2	1,844
2C-S06	2	3	1	1	3	1	1	1	3	3	1,9	2	1	2	2	2	1	2,022
2C-S07	2	2	2	1	1	1	1	3	3	2	1,8	1	2	2	1	3	2	1,767
2C-S08	2	1	1	2	3	2	2	3	3	1	2	2	3	2	1	1	2	1,822
2C-S09	3	3	2	2	3	3	1	3	1	3	2,4	3	3	2	3	2	2	1,778
2C-S10	1	3	2	2	3	3	1	3	3	1	2,2	3	3	3	1	1	3	2,178
2C-S11	1	1	1	1	3	1	1	1	1	1	1,2	3	3	1	1	1	3	1,756
2C-S12	1	1	1	1	3	2	1	1	3	1	1,5	3	2	2	1	1	1	1,756
2C-S13	1	2	1	2	3	2	2	1	1	2	1,7	3	2	3	1	2	2	2,144
2C-S14	1	2	3	3	1	3	2	3	2	1	2,1	2	3	2	2	1	2	1,744
2C-S15	2	1	1	2	3	3	2	2	2	3	2,1	3	3	2	1	1	2	1,922
2C-S16	2	1	1	2	2	3	2	3	2	2	2	2	2	2	2	2	2	1,8
2C-S17	2	2	1	2	2	3	2	3	2	1	2	2	2	2	2	1	2	1,8
2C-S18	1	1	1	3	2	2	1	2	3	2	1,8	3	1	3	3	1	3	1,867
2C-S19	1	1	1	2	2	2	3	1	3	3	1,9	2	3	3	1	2	3	1,922
2C-S20	2	2	1	3	2	3	3	2	3	1	2,2	1	2	2	3	1	1	1,833
3C-S01	1	2	2	1	1	2	1	2	1	2	1,5	3	3	2	1	2	1	1,7
3C-S02	3	3	3	1	3	1	3	3	1	3	2,4	3	3	2	1	3	1	2,044
3C-S03	2	3	1	3	3	3	1	2	3	2	2,3	3	2	3	2	3	3	2,189
3C-S04	2	3	1	1	3	2	1	3	2	1	1,9	2	1	2	1	2	2	1,778
3C-S05	2	2	1	1	2	2	1	3	2	1	1,7	3	2	2	1	1	2	1,756
3C-S06	2	3	1	3	3	3	3	2	2	2	2,4	2	1	1	2	3	2	2,122
3C-S07	2	2	1	1	1	1	1	1	1	1	1,2	1	1	1	1	1	1	1,556
3C-S08	2	3	1	3	3	3	1	1	3	3	2,3	3	3	3	3	3	2	2,211
3C-S09	1	2	1	2	2	1	2	1	1	1	1,4	2	3	3	1	2	2	1,778
3C-S10	2	1	2	2	2	2	1	3	3	2	2	2	3	1	2	2	2	2,078
3C-S11	1	2	2	1	1	1	2	2	1	1	1,4	1	2	2	2	1	2	1,378
3C-S12	1	1	1	1	2	2	1	3	2	1	1,5	3	2	3	1	2	2	1,611
3C-S13	2	2	1	3	2	2	2	3	2	2	2,1	2	2	1	1	2	2	1,989
3C-S14	1	2	1	2	3	3	3	3	1	1	2	3	3	3	1	1	3	1,833
3C-S15	2	1	1	2	2	2	1	2	1	2	1,6	3	2	2	1	1	2	1,944
3C-S16	2	3	1	2	3	1	1	2	3	1	1,9	3	3	2	1	1	2	2,1
3C-S17	2	2	1	3	2	3	3	3	3	2	2,4	3	3	3	2	2	2	2,2
3C-S18	1	1	1	2	1	2	1	3	2	1	1,5	3	2	2	1	1	2	1,678
3C-S19	1	2	1	2	2	2	2	2	1	1	1,6	3	1	3	2	2	2	1,6
3F-S01	1	3	1	3	3	2	1	2	2	1	1,9	2	2	1	2	3	2	1,967
3F-S02	1	2	1	2	3	2	1	2	2	1	1,7	2	2	2	2	2	2	1,889
3F-S03	2	3	2	2	3	3	3	2	2	2	2,4	1	1	1	3	2	2	2,1
3F-S04	3	2	2	2	2	2	2	3	2	2	2,2	2	2	3	2	2	3	2,1
3F-S05	3	3	1	1	3	2	1	2	3	2	2,1	3	3	3	1	2	2	2,111
3F-S06	3	3	2	3	2	3	3	1	3	2	2,5	3	3	3	1	1	2	1,989
3F-S07	2	2	1	2	1	1	2	2	2	3	1,8	3	1	2	2	3	1	1,944
3F-S08	2	2	3	2	3	2	2	1	3	3	2,3	3	2	2	2	3	3	2,111
3F-S09	2	2	1	1	3	2	1	2	2	1	1,7	2	2	3	3	3	3	2,144
3F-S10	2	3	2	1	3	2	1	2	1	2	1,9	3	2	2	1	3	2	2,156
3F-S11	3	2	1	1	3	3	2	1	3	2	2,1	3	3	3	2	1	1	2,156
3F-S12	1	2	3	2	3	3	3	1	2	2	2,2	1	2	2	3	2	2	2,144
3F-S13	1	3	2	1	2	2	3	3	3	1	2,1	3	3	3	1	3	3	2,067
3F-S14	2	2	1	2	3	3	2	3	1	2	2,1	3	3	3	2	2	1	2,033
3F-S15	3	2	1	3	2	3	2	2	2	1	2,1	2	2	2	3	1	2	2,089
3F-S16	1	3	1	2	3	3	3	2	2	2	2,2	2	3	2	2	2	2	1,944
							OVERALL mean of LLS USE in WRITING (all students)				1,953						OVERALL LLS USE MEAN (all students)	1,926

OVERALL CORRELATIONAL STATISTICS	
r	0,625
t	7,468
p(two tails)	00000000588
skewness S.E.	0,349
skewness LLSs	-0,363
kurtosis S.E.	-0,509
kurtosis LLSs	0,033
SD S.E.	0,652
SD LLSs	0,223
Q1 S.E. (25^ perc.)	2,714
MEDIAN - S.E.	3,143
Q3 S.E. (75^ perc.)	3,643
IQR S.E.	0,929
S.E. lower threshold	1,321
S.E. upper threshold	5,037
Q1 LLSs (25^ perc.)	1,767
MEDIAN - LLSs	1,922
Q3 LLSs (75^ perc.)	2,111
IQR LLSs	0,344
LLSs lower threshold	1,251
LLSs upper threshold	2,627
LLSs Outliers	OK
S.E. Outliers	OK

Appendix D - Correlations by Skill (RQ2)

High-resolution version with formulas available at:

https://docs.google.com/spreadsheets/d/1WzOnBoej7mXsvPgPKwMOmcVsUe-rXgPtGm--3-G58xw/edit?usp=sharing



Appendix E - Correlations by Strategy Type (RQ3)

High-resolution version with formulas available at:

https://docs.google.com/spreadsheets/d/1WzOnBoej7mXsvPgPKwMOmcVsUe-rXgPtGm--3-G58xw/edit?usp=sharing

