University of Southampton

Faculty of Arts and Humanities

Languages, Cultures and Linguistics

The Impact of Listening Strategy-Based Instruction on Self-Efficacy, Motivation, Self-Regulation and L2 Listening Comprehension in Saudi Mixed-Ability University Classrooms

by

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Abstract

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A glance through the past 40 years of second language (L2) listening instruction reveals an interesting picture of the pedagogical transition from the conventional listening comprehension approach emphasizing the final comprehension outcome in L2 listening instruction towards teaching students 'how to listen'. Current research directions have emphasised the role of strategy training and metacognitive instruction in L2 listening development. Research also shows that L2 learning outcomes are significantly affected by individual differences, and that intra-individual factors (self-efficacy, motivation, self-regulation, and metacognitive awareness) influence listening comprehension outcomes. Furthermore, it is emerging that attempts are being made to examine the dynamic interplay of individual differences, metacognitive self-regulatory processing, and links to L2 listening outcomes and motivation. However, research is currently lacking on the connections between self-efficacy, motivation, and self-regulatory strategies in L2 listening comprehension in studies on L2 listening. The present study proposes a pedagogical intervention based on a theoretical framework, drawing from educational psychology and strategy instruction research. The intervention aims to target task-specific strategy clusters (orchestration of more than one listening strategy), raise awareness, model behaviour, and provide positive feedback. By incorporating a self-regulated learning model emphasising metacognition and L2 listening strategies, learners may be able to exercise more control over their learning process, which could, in turn, boost their self-efficacy and motivation to learn.

This quasi-experimental study investigates: (1) the effect of hybrid (synchronous) L2 listening strategy-based instruction on Saudi EFL students' listening comprehension and intra-individual factors (N = 124); (2) the interrelationships between (a) self-efficacy, (b) motivation, and (c) L2

listening self-regulation; and (3) the potential effects of strategy-based intervention on students' behavioural and motivational characteristics during the L2 listening process. Data were collected using questionnaires, listening comprehension tests, stimulated-recall protocols, individual interviews, a teacher's diary, and L2 listening in-class activities and documents.

As hypothesised, the results of the mixed-methods data analysis provide evidence that students in the experimental group outperformed their counterparts in the control group in both listening comprehension and intra-individual factors. In addition, the intervention had a favourable impact on individual learners in terms of their self-efficacy, motivation, self-regulation, and metacognitive awareness, as there was a positive correlation between these factors. This study also provides fresh perspectives in the domain of second language learning by demonstrating that motivational factors have a positive impact on self-efficacy beliefs through the mediating influence of self-regulatory strategies. These results also have significant educational consequences for English as a Foreign Language (EFL) teachers, educators, and stakeholders in second language education.

The primary finding of this study is that teaching listening strategies is not simply a matter of assessing comprehension; rather, it involves comprehending the process by which students listen and improving their strategic behaviours in the process. Moreover, it is important to recognise that students have varying abilities and motivations in the classroom. This awareness requires a greater focus on task design, selecting engaging instructional materials, and integrating research-based teaching methods for the covert and complex skill of L2 listening. The study also provides insights into some of the issues related to remote teaching in L2 listening research, as well as students' perceptions of and attitudes towards listening strategy-based instruction in hybrid learning.

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Research Thesis: Declaration of Authorship

Print name: Omnia Rawa

Title of thesis: The Impact of Listening Strategy-Based Instruction on Self-Efficacy, Self-Regulation, Motivation and L2 Listening Comprehension in Saudi Mixed-Ability University Classrooms

I declare that this thesis and the work presented in it are my own and has been generated by me as the result of my own original research.

I confirm that:

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2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
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6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before

Signature: ..... Date:.....

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Abbreviations

AIC..... Akaike Information Criterion

AMTB ..... Attitude/Motivation Test Battery

A2..... Elementary Level

B1..... Intermediate Level

CEFR..... Common European Framework of Reference for Languages

CLT ..... Communicative Language Teaching

CSS ..... College of Social Sciences

EFL ..... English as a Foreign Language

ELC ..... English Language Centre

ELCMS..... English Listening Comprehension Motivational Scale

ELCT ..... English Listening Comprehension Test

ELSMS ..... English Listening Self-Efficacy and Motivation Scale

ELSQ ..... English Listening Self-Efficacy Questionnaire

ELSS..... English Listening Self-Efficacy Scale

ERGO-II..... Ethics and Research Governance Online

ESL..... English as a Second Language

ESP ..... English for Specific Purposes

GLL ..... Good Language Learner

H0 ..... Null Hypothesis

H1 ..... Alternative Hypothesis

ID..... Individual Differences

IELTS..... International English Language Testing System

L1 ..... Learners' First Language

L2 ..... Learners' Second Language

LCT ..... Listening Comprehension Test

LLC..... Long Listening Comprehension

LLS..... Language Learning Strategies

MALQ..... Metacognitive Awareness Listening Questionnaire

MPLC..... Mixed-Proficiency Language Class

QESE..... Questionnaire of English Self-Efficacy

RSPS ..... Reader Self-Perception Scale

S2R ..... Strategic Self-Regulation

SCT ..... Social Cognitive Theory

SHLM..... Synchronous Hybrid Learning Method

SI ..... Strategy Instruction

SILL..... Strategy Inventory of Language Learning

SLA ..... Second Language Acquisition

SLC ..... Short Listening Comprehension

SLSQ..... Self-Regulated Listening Strategy Questionnaire

SPSS ..... Statistical Package for the Social Sciences

SRL ..... Self-Regulated Learning

VIF ..... Variance Inflation Factor

Chapter 1 Introduction

1.1 General Introduction

Recognizing the value of listening in a foreign language has often taken a back seat when compared to other language skills. It is commonly overlooked, primarily due to the misconception that the listening skill is acquired automatically. However, it is essential to emphasize the profound importance of listening in the process of second language acquisition. Listening plays a pivotal role in obtaining comprehensible input, which, in turn, significantly contributes to the overall development of learners in their pursuit of a second language (henceforth referred to as L2) (Brown, 2007; Huei-Chun, 1998; Renukadevi, 2014; Ulum, 2015). Described as the 'Cinderella' of second language learning, listening has been overshadowed by its more prominent counterpart, speaking (Vandergrift, 1997). Research has shown that second language learning outcomes are affected by individual differences (ID) (Dörnyei, 2005; Skehan, 1989) and that particular learner factors influence outcomes in L2 listening comprehension. The development of L2 listening skills depends on cognitive aspects, such as metacognitive strategies (Goh, 2008; Vandergrift, 2004); affective factors, such as motivation (Rivera, 2018; Vandergrift, 2005); self-efficacy (Graham, 2007); and anxiety (Vogely, 1998; Xu & Huang, 2018). In research on individual differences (ID), these dynamic variables interact with contextual variables, such as social, classroom, and instructional environments in conjunction with other ID variables like language aptitude and learning styles. These collective factors, which exert influence over language learning success, listening comprehension, and the interplay among those factors, are likely reciprocal (i.e., language learning success influences motivation which, in turn, influences success) (Dörnyei, 2005, 2010).

However, L2 listening comprehension research has been confined to the investigation of listening ID variables in pairs (Fung & Macaro, 2019; Kassem, 2015; Rivera, 2018), or the effect of an individual variable, such as self-efficacy or metacognitive strategies, on L2 listening achievement (Chen, 2007; Vandergrift & Tafaghodtari, 2010). Very few studies have focused on the interrelationships of ID variables with one another in relation to the L2 listening comprehension process (Bang & Hiver, 2016; Chon & Shin, 2019; Mareschal, 2007; Smith, 2020). Thus, in order to obtain a deeper explanation of learners' success in complex L2 listening processes, further research is needed to elaborate on the interplay among several affective and cognitive factors that are known to influence L2 listening proficiency.

1.2 Contextual Background

1.2.1 Current Practices in Teaching English as Foreign Language in Saudi Arabia

English language education in public schools in Saudi Arabia has historically relied heavily on traditional teaching methods, particularly the audio-lingual and grammar-translation methods (Al-Seghayer, 2015). These methods prioritize the mastery of grammatical rules and vocabulary, with a focus on accuracy and correctness. According to Al-Seghayer (2015), English teachers frequently rely on Arabic in Saudi public educational context, their mother tongue, which is the only officially recognized language in the country. This can involve using Arabic to manage and teach English classes or relying on translation. However, Saudi Arabian students' weaknesses in the four basic language skills have been linked to the excessive use of Arabic inside the classroom (Alshammari, 2011; Kharesheh, 2012; Mahmoud, 2012). Additionally, observing an English class in Saudi Arabia's public education today would lead one to notice that Arabic and translation into Arabic prevail in the interactions between teachers and students. Within an English classroom setting, Saudi English teachers tend to utilize Arabic more frequently than is required and rely on it more than English when providing instructions, explaining new words, clarifying language concepts, and conducting class exercises. As a result, students, especially less-proficient EFL learners, often prefer to communicate in Arabic when taking the initiative or asking questions (Al-Seghayer, 2015).

In recent years, there have been efforts to modernize English language education in public schools in Saudi Arabia and to move away from conventional and traditional methods. This includes the incorporation of more communicative language teaching approaches and the development of interactive and multimedia resources to support language learning (Assulaimani, 2019; O Alharbi, 2020). However, traditional teaching methods continue to be used in many public schools in Saudi Arabia, particularly in rural areas with limited resources and infrastructure.

These problems have contributed to a passive approach to learning among Saudi EFL learners when they reach tertiary level of education. Not to mention that the education system places a greater emphasis on achieving good grades on examinations rather than on improving overall fluency and proficiency in the English language. Consequently, teachers prioritize preparing students for exams rather than fostering linguistic and communicative skills. As a result, interactive activities in English classrooms, such as game-based learning, role-playing, and communicative exercises, are often neglected in public education. Teachers also tend to avoid opportunities for students to engage in authentic communicative situations, such as exchanging

information, scheduling meetings, resolving problems, or participating in daily conversations (Al-Seghayer, 2015).

1.2.2 L2 Listening of Saudi EFL Learners

According to Al-Nasser (2015), one critical ability that has been adversely affected by the inconsistent Saudi Arabian educational reforms is listening. Unlike reading, writing, and speaking, listening is often considered a more challenging skill for EFL Saudi learners due to the need to interpret, comprehend, evaluate, and remember the spoken language. In his study aimed at investigating whether Saudi EFL students encounter distinctive challenges in their listening comprehension, Hamad Al-khresheh (2020) conducted an inquiry, which involved the administration of a diagnostic test and a questionnaire to a group of 31 Saudi English students, alongside gathering reflective essays from eight EFL teachers. The findings of the analysis confirmed that Saudi EFL students experience significant difficulties in their listening comprehension. The majority of the participants (64.5%) rated their English proficiency as fair, with listening being identified as the weakest skill (51.6%). Additionally, the qualitative analysis of the teachers' reflective essays supported the notion that the Saudi environment plays a crucial role in the acquisition of not only listening skills but also English skills as a whole. This is due to the fact that language and culture are intertwined and cannot be viewed as separate entities.

Due of those challenges, Saudi EFL students frequently struggle to develop excellent listening comprehension. As noted by Hamouda (2013), many universities departmental syllabi prioritize English grammar, reading, and vocabulary over listening skills. This may be attributed to the inadequate coverage of listening skills in many curricula and textbooks in addition to inadequate teaching practices when it comes to listening instruction. Moreover, there is limited research available on listening comprehension and development among Saudi EFL learners. Despite playing a crucial part in language acquisition, listening skills have received little attention, according to researchers. This acknowledgement highlights the need for more research on the listening issues faced by EFL learners in Saudi Arabia.

1.3 Research Problem

An overview of the identified barriers that inhibit learners from becoming active L2 listeners in different educational contexts demonstrates a number of factors that hamper learners from developing the listening skill. These factors include speed of speech, speech clarity, listeners limited linguistic knowledge, the variety of accents, lack or ineffective use of listening strategies, cultural differences, and low motivation to listen (Field, 1998). As mentioned in section 1.2.21.2.1,

in Saudi Arabia, tertiary-level students are found to encounter listening comprehension difficulties. Studies that have attempted to explore listening difficulties among Saudi students identified several listening comprehension problems pertaining to the listening texts assigned to them. Common causes of problems are long spoken texts; unfamiliar topics; listening tasks, such as questions and task objectives; listening instruction, such as strategy use and lack of visual support; and linguistic problems, such as lack of vocabulary knowledge and recognition of prosodic features (Alzamil, 2021; Hamad Al-khresheh, 2020; Hamouda, 2012).

Consequently, some Saudi students exhibit negative affective symptoms in their listening performance, such as anxiety, low-motivation, lack of interest, and low self-efficacy levels (Al-Seghayer, 2011; Hamouda, 2013). To help remedy the low internal motivation of less skilled Saudi L2 listeners, it is recommended to tap into factors that motivate them through undertaking appropriate interventions. Therefore, a practical intervention is needed, aimed at increasing EFL Saudi learners' metacognitive awareness and the use of appropriate instructional strategies. It could further augment Saudi students' motivation, self-confidence, self-regulation, and interest to improve their L2 listening. This, in turn, could help them progress more rapidly and overcome their L2 listening difficulties.

However, it should also be noted that strategy instruction designed to assist less proficient learners need to be dealt with cautiously. Swan (2008) argued that at such a low level of proficiency, rather than focusing on 'ill-defined strategies' (p. 272), the focus needs to be directed towards exposing learners to more language input. Yet, the listening strategy instruction highlights the importance of having a well-designed strategy intervention that focuses on equipping learners with the following:

a) a compensatory tool aimed at helping learners overcome their listening difficulties (linguistic problems, such as recognising weak forms and phonological-decoding processing);

b) a supporting ongoing learning tool aimed at developing learners' strategic planning to help them become more autonomous and lifelong learners.

Moreover, if these strategies can be supportive, leading to a sense of achievement and progress in handling an unfamiliar language, and ultimately contributing to improved proficiency, they can prove to be beneficial, particularly in the early stages of learning a second or foreign language. Graham et al.'s (2020) cluster analysis showed that young beginner learners of French benefited the most from strategy instruction with respect to self-efficacy, especially if the strategy instruction was conducted under a teacher's guidance and framed within an orchestration of more

than one strategy. Furthermore, teacher guidance (or feedback) during listening strategy intervention, which is a form of verbal persuasion and is a source of self-efficacy (Bandura, 1997), is of critical importance, as it can serve to change low-proficient learners' thinking and behaviours towards performing a task. It can also positively enhance their perception of and beliefs on self-efficacy (Macaro, 2019).

Although successful L2 listeners are characterised by employing a wide range of metacognitive listening strategies and strategy clusters (orchestrating two or more strategies concurrently) (Smith, 2020), possessing metacognitive knowledge of how to self-regulate the listening process is not enough to encourage students' learning processes, given that learners must also be motivated to carry out the listening tasks (Pintrich, 2003). In the theory of self-regulated learning, motivation and metacognitive awareness are viewed as two constructs that positively interact to predict learning performance (Zimmerman, 2008). However, from a social-cognitive perspective (Schunk, 1989; Zimmerman, 1989), self-regulated learning is not merely a mental ability or an academic performance skill; rather, it encapsulates the underlying sense of personal agency, self-efficacy, and other motivational processes to regulate sources of personal, behavioural and social influences (Zimmerman, 1995; 2002). Self-regulated learners are those who possess proactive qualities due to their strong motivational beliefs, metacognitive strategies, and active behaviours to successfully achieve their learning goals (Bembenutty, 2008; Schunk & Zimmerman, 2007; Zimmerman, 2008).

According to Pintrich (2000, p. 453), self-regulation is a self-directed process defined as 'an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognitions, motivation, and behavior, guided and constrained by their goals and the contextual features in the environment'. Research on academic self-regulation has provided compelling evidence that self-regulatory beliefs and strategies are significantly correlated with academic achievement (Mareschal, 2007). Moreover, a plethora of studies has conclusively demonstrated the feasibility of teaching self-regulated learning processes, and their ability to support and boost students' achievement (Boekaerts et al., 2000; Winne, 2001; Zeng & Goh, 2018; Zimmerman, 2000). Likewise, research indicates that motivation, which is an integral part of self-regulated learning, can be enhanced through instruction, and such effect is directed or mediated by the interplay of language learning strategies and learners' individual differences, causing a positive influence on L2 development (Ardasheva et al., 2017).

1.4 Significance of the Study

Since there is ample evidence that learners' metacognition (thinking about one's own thinking

process) and self-regulation have a direct effect on learning outcomes (Goh, 2008; Zimmerman & Schunk, 2001) and a positive influence on self-efficacy and motivation (Dörnyei & Skehan, 2003; Vandergrift, 2005), this study aims at investigating a metacognitive pedagogical approach to L2 listening that focuses on the long-term development of self-regulated learning and strategic listening through process-based listening instruction in hybrid context. Moreover, this pedagogical exploration into L2 listening comprehension skills aims at assisting every student, regardless of their proficiency level in EFL; who enrols in Saudi universities; and is required to study in English. To that end, prioritizing the enhancement of English listening skills is essential for achieving overall academic success. Additionally, particular attention should be given to low-skilled listeners because their self-efficacy beliefs and motivation may be lower, which would more likely affect their listening proficiency outcomes adversely. Learners in this study are taught how to develop better knowledge about themselves as L2 listeners, understand the nature of L2 listening, and learn how to utilise multiple integrated strategies during listening practice over the course of one semester. Furthermore, the objective of the current study is to investigate the interactions between three key areas in this respect: (a) L2 listening metacognitive self-regulation, (b) listening self-efficacy, and (c) listening motivation, and the potential effects of strategy-based intervention on students' behavioural and motivational characteristics during L2 listening development, as well as its impact on learners' different proficiency levels.

In this study, the researcher takes on a unique and dynamic role, serving as both the teacher and researcher. This dual position enables a seamless integration of pedagogical practice and scholarly exploration, ensuring consistent delivery of the intervention to both the experimental and control groups simultaneously. This, in turn, guarantees equitable learning experiences. Additionally, this integrated instruction approach is designed to sequentially instil metacognitive strategies aimed at enhancing students' L2 listening skills and promoting self-regulated learning. These goals are attainable through the researcher's dual role as both educator and investigator.

1.5 Purpose of the Study

Little research has been conducted to evaluate the effect of and the relationships between self-regulation, self-efficacy, motivation, and learning strategy instruction in relation to listening comprehension within EFL learning contexts. Conducted under the theoretical framework of Zimmerman and Moylan's (2009) three-phase cyclical model of Self-Regulated Learning and Vandergrift's (2004) pedagogical cycle of metacognitive strategies, the present study examines the interrelationships between these factors and explores how motivation-driven processes influence L2 listening outcomes. This study will target lower-achieving learners to see whether a teaching intervention can improve their awareness and use of listening comprehension strategies,

particularly self-regulation.

The aims of this study are:

- To investigate how listening strategy-based instruction influences learners' self-efficacy, motivation, self-regulation, and listening outcomes.
- To unravel the interacting relationships between self-efficacy, motivation, and self-regulation, in order to better understand the learner factors that influence listening comprehension and, thus, listening outcomes.
- To better support teachers with instructional tools for improving listening instruction.
- To solve a local problem by attempting to support all students of all L2 English proficiency levels, who enter Saudi universities and have all their content in English, as well as focusing on the lower achieving learners because it is more likely that their self-efficacy beliefs and motivation; and thus, outcomes, are weaker.
- To gain insights from learners on the pedagogic intervention and how positive or negative they feel about it.

1.6 Research Questions

The main objective of this research is to investigate how listening strategy-based instruction can affect the development of listening comprehension, self-efficacy, motivation, self-regulation and the perceived value of listening comprehension training for students. The study explores the benefits of the self-regulated framework that uses pedagogical cycle of metacognitive strategies in the context of Saudi undergraduate students, using both quantitative and qualitative methods. It also examines the interrelationships between three main factors affecting students' strategic behaviours (self-efficacy, motivation, and self-regulation).

The research comprises four primary questions, with one sub-question:

1. To what extent do listening strategy-based instruction and feedback on listening strategy use affect self-efficacy for L2 listening, use of self-regulation strategies, L2 listening motivation, and L2 listening outcomes over the treatment period?
2. What are the relationships between self-efficacy for L2 listening, self-regulation, and L2 listening motivation at all test times?
3. Which, if any, of the variables (self-regulation, L2 motivation, metacognitive awareness) predicts

L2 self-efficacy for L2 listening?

4. What self-regulatory behaviours did the learners employ during the L2 listening strategy-based instruction?

4a. How did the students perceive the listening strategies instructed in hybrid learning: their strategy use, and their preferences in terms of L2 listening instruction?

This study aims to address four primary research questions. The first question focuses on examining the impact of listening strategy-based instruction on learners' listening development and performance. By comparing the scores of the two groups (experimental and control), it is possible to address the behavioural change in students' listening performance, self-efficacy, motivation, and self-regulation. Moreover, to achieve a thorough understanding of how listeners utilize self-regulatory strategies at pre- and post-test, a mixed-methods approach was employed to analyse research question one. This approach involves using both qualitative and quantitative analysis to cross-validate the results obtained from different data sources (Dörnyei, 2007). The second and third questions seek to explore the relationships between intra-individual variables. While the second question investigates the interrelationships between the three main variables (self-efficacy, motivation, and self-regulation), the third research question aims to determine which of the three variables, self-regulation, motivation, or metacognitive awareness, predicts self-efficacy in L2 listening. These two questions will be analysed quantitatively to evaluate the relationships between those variables. The fourth research question aims to explore the students' self-regulatory behaviours during the course of the intervention by collecting the data qualitatively using two instruments (the teacher's diary and in-class listening documents). The fourth question has one sub-question aims to examine the effect of listening strategy-based instruction on learners' perceived value of listening comprehension intervention by analysing qualitative data after the semi-structured interviews at post-test (or Time 2).

1.7 Organization of the Thesis

The thesis comprises six chapters. Chapter one focuses on the theoretical and contextual background followed by the research problem and concluded with the significance and the purpose of the study as well as the research questions. Chapter two provides a review of pertinent literature, with a particular emphasis on the primary concepts including L2 listening comprehension; self-efficacy, motivation theory, self-regulation, listening strategies and listener metacognition. The pedagogic tools and the research questions are then presented at the end of this chapter. Chapter three provides an overview of research methodology and design, and it describes the participants, the setting, the intervention, in addition to an outline of the

quantitative and qualitative instruments. It concludes with an explanation of the detailed process of data collection, methods and the analyses used to address each research question. Chapter four presents the findings of the study, structured around each of the research questions. Chapter five reports on a discussion of the main results of the study, organized following each of the research questions. Chapter six concludes with the theoretical, methodological, and pedagogical implications and the contribution of the study. It also highlights some of the study's limitations, along with recommendations for future research.

1.8 Summary

This chapter has introduced the study by presenting a general introduction (1.1). At the start of the chapter, the contextual background of the research was highlighted (Section 1.2) followed by an overview of the research problem (Section 1.3). This was followed by the significance of the study (Section 1.4). The chapter also discussed the purpose of the study in section 1.5 followed by research questions (Section 1.6). Lastly, the organization of the study was illustrated by providing a brief summary of the main content of each chapter that will be covered throughout the entire study (Section 1.7).

Chapter 2 Literature Review

2.1 Listening Comprehension

2.1.1 The Importance of Listening Comprehension in L2 Development

While L2 listening has often been overlooked and marginalized, listening comprehension undeniably holds a pivotal role in second and foreign language learning. It can be deemed the most crucial skill in L2 development for various compelling reasons. Firstly, listening comprehension not only provides the necessary input to learn a foreign language, but it is also the most regularly applied skill in L2 instructional contexts compared with other language skills (Rost, 2013; Vandergrift, 2007). Comprehensible input is one of the primary sources required for L2 development, and it can be received through listening to oral messages during the early stages of learning (Krashen, 1985). Once L2 learners process these oral messages for meaning, grammar, and vocabulary, knowledge will eventually be acquired (Ortega, 2014).

Secondly, the ability to listen effectively in L2 not only facilitates the development of other language skills, including speaking, reading, writing, and vocabulary, but it is also key to effective communication because it prevents communication breakdowns. Listening comprehension is also a way of enjoying a wide variety of media for L2 learners, such as podcasts, television programmes, and video content on social media (Rost, 2011; Vandergrift, 2007).

However, becoming a proficient L2 listener is extremely challenging because it requires a combination of mental and physical effort to comprehend and endure the learning process, especially among less proficient L2 listeners, who suffer from comprehension gaps and high anxiety reactions, making L2 listening comprehension ‘a source of frustration’ at early stages of L2 development (Field, 2019; Graham, 2006; Horwitz et al., 1986; Vandergrift & Tafaghodtari, 2010, p. 471).

2.1.2 Listening Comprehension: Top-Down and Bottom-Up Processing

Understanding the complex cognitive processes that underlie L2 listening comprehension is key to facilitating L2 listening and learning and to providing evidence-based approaches for L2 listening instruction. A parallel interaction between top-down processing (building meaning through semantic meaning and prior knowledge) and bottom-up processing (decoding process of sound segments and words through linguistic knowledge) is a requirement to ensure effective listening comprehension. However, L2 listeners may approach the spoken text differently, depending on the

purpose of the listening task. For instance, they might rely on one process more than another, depending on task demands (Goh & Vandergrift, 2018).

Recent instruction in L2 listening has shown a strong inclination toward enhancing top-down processing. This shift is supported by substantial evidence, indicating that proficient L2 listeners effectively employ top-down strategies like inferencing, while less skilled listeners tend to heavily depend on bottom-up processes such as mental translation. These tendencies can impede their comprehension of diverse utterances (Hulstijn, 2003; Vandergrift, 1998; Wu, 1998).

The L2 listening process not only involves the interaction of internal, affective, and self-regulatory processes, it also involves the interaction of different types of knowledge in complex cognitive processes. This is what Vandergrift (2004, p. 4) described as the ability to create a 'mental representation'. During the listening process, the comprehension of speech sounds depends heavily on listeners' efficiency in processing what they hear. The fluent listening in L1 occurs automatically for two reasons: a) the decoding process is so rapid and accurate, and b) the extensive amount of linguistic knowledge is greater than in L2 (Field, 2019; Smith, 2020).

Limited linguistic knowledge is one of the main factors that hinders the listening process in L2, along with accent and speed of speech, among other factors. As such, early-stage L2 listeners often find themselves overloaded with the need to concentrate on the decoding of lexical items and parsing (converting words into syntactic patterns), leaving little room for conceptual processing and meaning construction (Field, 2019; Vandergrift, 2006). On the other hand, proficient L2 listeners have a good command of linguistic knowledge and decoding skills that can be applied during automatic processing at conceptual levels, which allows them to build better schematic and mental constructions of received meaning (Goh & Vandergrift, 2018). This is because having a strong foundation in language and decoding abilities allows individuals to process information more efficiently and effectively, leading to a deeper understanding of the received meanings.

2.1.3 Teaching L2 Listening Research

In L2 classrooms, learners are faced with a 'unidirectional' type of listening comprehension, where they listen to a recording without interacting with the speaker (Macaro et al., 2007). The predominant method to teach L2 listening in the classroom was the conventional Listening Comprehension Approach, in which teachers focused on the product or outcome of the listening activity rather than the process of teaching L2 learners how to listen (Field, 1998). Vandergrift (1997, p. 494) highlighted the importance of implementing an interactive listening approach in L2 listening instruction and emphasised the need to pay more attention to reception strategies, or

what he described as the 'Cinderella' of communication strategies', because they received less attention compared to production strategies.

Moreover, the paradigm shift in L2 education towards the Communicative Language Teaching (CLT) approach has stressed the need to teach L2 listening for effective communicative purposes (Goh, 2008). Providing learners with opportunities for social interaction during the L2 listening activities is central to raising their awareness of the L2 listening comprehension process, as well as receiving feedback from their teacher or peers rather than listening to multiple recordings and answering questions in a 'transactional' way (Vandergrift, 1997, p. 495). Also, through negotiating meaning during the listening process (in the forms of clarifications, repetitions, or modifications), Vandergrift (1997) argued that learners can benefit from both listening process awareness and reception strategies to understand and negotiate meaning more effectively.

2.1.4 Factors Influencing L2 Listening Comprehension

Due to the interactive and complex nature of the L2 listening process, effective listening skills can be difficult to develop and teach. This would make listening comprehension a source of demotivation for less proficient learners (Goh, 2000; Graham, 2011). In addition, learning a second or foreign language can cause issues for one's ego, leading to negative consequences for one's self-image as well as making people more vulnerable – especially adults (Ortega, 2014).

However, contemporary psychologists have found that motivational beliefs can play a critical role in enhancing learners' cognitive engagement in classroom settings (Saeed, & Zyngier, 2012; Schlechty, 2001). For instance, self-efficacy, defined as individuals' perceptions of how capable and confident they are when performing specific tasks, is found to be the strongest predictor of listening comprehension achievement (Graham, 2007). Self-efficacy is the central determinant and the main predictor of behaviour in the social cognitive structural model of self-motivation and self-regulation of human functioning, developed by Bandura (1986). It is assumed that language learners are actively engaged toward gaining mastery in their learning. These are innate growth tendencies that express the need to be in control and which can be explained by the Self-Determination Theory (Deci & Ryan, 1985). The theory would suggest that learners are more self-determined when certain psychological needs are fulfilled, and they will be more motivated to learn when they believe that the listening strategy they apply will have a positive impact on their listening comprehension.

Increasing people's perceived self-efficacy can foster self-regulation through strategy use and reinforce motivation and persistence in the face of learning difficulties (Panadero & Alonso-Tapia, 2014). Likewise, increased self-regulation can reciprocally and positively affect self-efficacy,

resulting in the attainment of a positive academic outcome (Zimmerman & Schunk, 2001). In L2 listening development, self-regulation has been found in research to positively interact with the L2 listening process, which could then have a direct effect on listeners' strategic behaviours and listening outcomes (Goh, 2002; Vandergrift, 2002). These affective factors, along with the role of metacognitive self-regulation in L2 listening development, will be explored in more detail in the subsequent sections after a brief summary of the present one.

2.1.5 Summary

The preceding overview of the current knowledge of L2 listening process emphasizes the difficulties and consequences linked to developing L2 listening comprehension. By the same token, L2 listening research affords valuable insights into current instructional practises for teaching listening in educational settings. Drawing upon research findings on L2 listening instruction, the conventional comprehension approach adopted in L2 listening instruction, which is teacher-centred, has been criticised for its ineffectiveness in developing L2 listening comprehension (Field, 2019). Practitioners are advised to equip learners with means to analyse, diagnose, and repair listening difficulties rather than relying upon repeated drill-based practice (Brown, 1986). Additionally, due to the complexity of the L2 listening process, less competent listeners may struggle to approach the 'automaticity' level, especially at the early stages of learning. As a result, they rely heavily on ineffective compensatory strategies, which they tend to do more harm than good. They can cause comprehension problems and other negative effects on learners' self-efficacy and anxiety, ultimately resulting in a decreased motivation to learn (Field, 2019; Graham, 2006; Graham & Macaro, 2008; Tafaghodtari & Vandergrift, 2008; Vogely, 1998).

L2 listening research suggests that understanding learners' individual differences in listening comprehension can also help in explaining learners' needs and strategic behaviour (Graham & Macaro, 2008). L2 motivation theories have provided some insights into the central role of self-efficacy, self-regulation, and motivation in exploring novel directions that may help learners experience control over their learning, have positive attitudes, and make positive attributions of L2 listening success.

2.2 Self-Efficacy

2.2.1 Introduction

Since the turn of the present century, motivation research has ventured into cognitive and social psychology, and L2 motivation researchers have started to consider motivation as a central source

of individual differences in foreign language learning. L2 motivation psychologists have shifted their attention towards educational psychology in an attempt to base their studies on theoretical frameworks and hone their understanding of language development.

This section gives an overview of the development and validation of self-efficacy theory and emphasizes its relation to language learning, academic outcome, and self-regulation. It is important to note that all the examined listeners' behaviours in this current study (e.g., strategic, motivational, and self-regulated) are subsumed under the umbrella of self-efficacy beliefs. Additionally, one of the primary goals of the designed intervention in this study is to improve the listening proficiency of the EFL learners through enhancing their self-efficacy, which presumably would lead to increased motivation and self-regulated learning. This, in turn, is expected to result in better listening attainments.

2.2.2 Social Cognitive Theory

Social cognitive theory (SCT) is a human functioning theory, theorised and developed by Bandura (1986, 1997). It positions the person centrally in human development over their lifespan. It also describes the factors or variables that influence and affect how people learn and behave. SCT posits that learning takes place in a social context as a result of the dynamic and reciprocal interaction of personal factors, including cognitive, affective states, behavioural and environmental factors (Bandura, 1986, 2001). Stemming from this reciprocal interaction between personal, behavioural, and environmental determinants, Bandura (1986) introduced the framework of 'triadic reciprocality' (See Figure 2.1), which is central in explaining human behaviour and agency. The principle of triadic reciprocality views human behaviours as the result of the interplay of these three factors, where the consequences of current behaviours can form expectations for future behaviours. In triadic reciprocality, individuals can make choices, generate new thoughts, self-examine their behaviours, interpret potential outcomes and attainments, and enhance beliefs related to their capabilities, which, in turn, guide subsequent and future behaviours. Therefore, SCT integrates all aspects of human agency (the human ability to direct and regulate their lives and immediate circumstances), including personal, behavioural, and environmental factors (Greene, 2017).

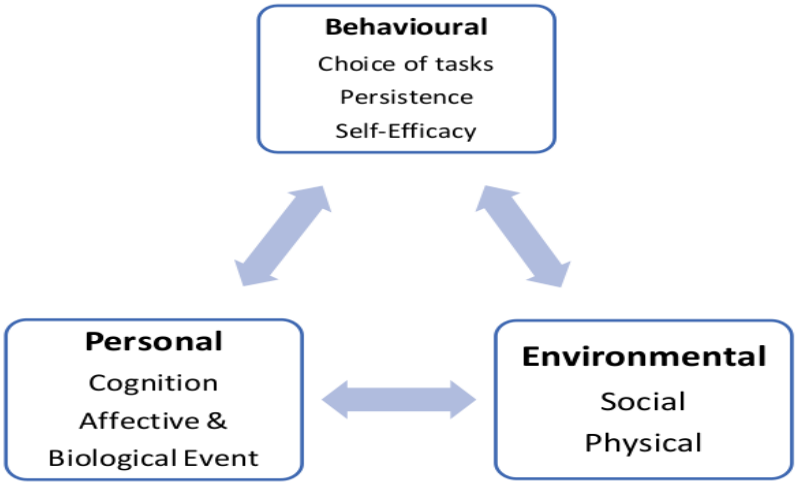

Figure 2.1 Bandura's concept of triadic reciprocality behaviour (Bandura, 1986)

In psychology, SCT moved beyond the behaviourist view, which was the predominant view during the first half of the 20th century. Behaviourism posits that learning takes place as a result of direct environmental experience while undergoing processes of positive reinforcement and punishment (Anderson, 2005; Greene, 2017). However, behaviourists could not provide a satisfactory explanation of some complex learning processes, such as the development of complex patterns of grammar among children (Lightbown & Spada, 2013). Moreover, SCT finds that direct reinforcement and stimulus-response explanations fail to account for all types of human learning.

The late 1950s witnessed the emergence of the 'cognitive revolution', which took the opposite view to behaviourist theories. It then became new dominant psychological approach during the last third of the 20th century. It viewed the human mind as a 'symbolic processor', which relies on mental processes such as attention, memory, conscious and unconscious cognitive resources to learn and behave (Ortega, 2014, p. 83).

In 1953, Bandura conducted research on the mechanisms underlying human learning and behaviour. His collaborative work with his first doctoral student in 1963, Walters, led to the initial finding of the critical role of modelling and observational learning in Social Learning Theory. An example of social learning theory in the classroom would be a student imitating the teacher or other students.

The Social Learning Theory was later expanded into the Social Cognitive Theory (1986), where Bandura added a more holistic overview of human cognition and functioning within the context of social learning. In this new cognitive interactional model, Bandura reconceptualised the role of individuals as self-regulating and self-reflecting. The SCT also emphasises the role of self-belief systems within individuals, which allow them to control and regulate their thoughts, emotions, and behaviours (Mills et al., 2007).

Even though SCT incorporates aspects of behaviourism, particularly reinforcement and punishment, cognitive theory, which emphasises mental processing and the role of the social context in shaping human functioning, it has some notable differences from the behaviourist theories. Firstly, it perceives individuals as being able to exercise control and have choice over their behaviours through mediating processes of goal-setting, judging outcomes, being proactive, and self-reflection in opposition to being governed by external forces or responding to 'stimuli' (Torre & Durning, 2015). SCT also differs from behaviourism in terms of the learning mechanisms. While behaviourists view learning as a response to the environment through observable behaviours, SCT emphasizes, in addition to learning by doing, the role of observation and modelling.

2.2.3 Social Cognitive Theory and the Self-System

One of the essential aspects of SCT and human agency is the notion of the self as a system. In SCT, individuals are depicted as conscious agents who constantly engage in intentional efforts of forethought, self-reflection, and self-reaction processes (Bandura, 2006, 2012). Thus, while behaviourism emphasises the role of external motivators to influence behaviours, SCT asserts the role of both external and internal motivators interpreted by the self-system to guide people's actions. For example, in educational settings, students' behaviours and their level of self-regulation are directed by both internal and external circumstances (Usher & Schunk, 2018).

In his argument, Bandura (2006, 2012) perceives the individual as a central contributor to human development, where individuals exercise a degree of control and influence over their personal and behavioural developmental progression, which accentuates the role of the self or person in regulating one's behaviours and cognition. Therefore, the self-system is the main arbiter in shaping cognitive structures for perceiving, guiding, self-regulating, and self-reflecting human behaviours. In SCT, the self is socially oriented and constructed within human interactions with the environment. Additionally, self-system develops a sense of agency when one understands the causal relations between the environment and one's actions and when one perceives oneself as the agent of these actions (Bandura, 2006). For instance, it develops when one starts observing and learning that actions can produce certain outcomes (action causality) and when one realises that s/he can perform certain actions (personal causality).

2.2.4 Self-Efficacy Theory

Self-Efficacy Theory, which was developed by Bandura (1977, 1986, 1995, 1997), was initially proposed to explain behavioural change in psychotherapy. Self-efficacy refers to the individuals'

belief in their capacity to behave in ways they consider necessary to achieve a specific level of performance. It thus reflects their confidence in being able to control their motivation and behaviour, as well as their social environment. It is essentially a cognitive self-evaluation that affects human experience, including the effort to be exerted, goals to be achieved, and the likelihood of achieving a certain acceptable performance.

Later on, self-efficacy received greater attention in the field of educational psychology. In social cognitive theory, self-efficacy is conceptualised as an agentic motivational construct that influences individuals' judgements of their capabilities to accomplish desired attainments (Bandura, 1986). Possessing self-beliefs, incorporated within Bandura's social cognitive theory (1986), is a key element of the sense of agency, which enables individuals to control their own thoughts, feelings, and behaviours (Bandura, 1986; Pajares, 2008). In self-efficacy theory, cognitive processes mediate behavioural change because they determine the acquisition and regulation of newly acquired behaviours (Bandura, 1977). Motivation, which is part of the cognitive process, plays a prominent role in the arousal and persistence of behaviour. From Bandura's (1977) perspective, motivation serves as a device that enhances previously learned behaviours and reinforces cognitive operations to create efficacy expectations, where a certain behaviour may lead to a desired outcome and alter behavioural functioning.

Self-efficacy beliefs have a direct and indirect effect on behaviour through cognitive, motivational, and affective processes. The indirect impact of self-efficacy has been observed to influence other determinants, such as goals, outcome expectations, and sociocultural factors embedded in the social environment (Bandura, 1995, 1997). This means that self-efficacy beliefs influence people's choices of actions; the goals they set for themselves; the amount of effort they put into fulfilling their goals; the expected outcomes; how to persist and persevere in the face of adversity; and how to manage and regulate their emotional feelings throughout these endeavours.

Self-efficacy beliefs are considered to be one of the most influential self-reflective and self-evaluation judgements of one's own capabilities to accomplish specific tasks and goals (Schunk, 1991). Self-reflection, embedded in self-efficacy beliefs, is the most distinctive measurement of control, where individuals discover their own cognitions and self-beliefs, evaluate the suitability of their thoughts and behaviours, and as a result, alter their thinking and behaviours based on self-reflective evaluation (Bandura, 1986). Perceived self-efficacy was later defined by Bandura (1997, p. 3) as 'beliefs in one's capabilities to organise and execute the courses of action required to produce given attainments'. Self-efficacy can be influenced by previous experiences of success and beliefs about particular tasks. Therefore, it can be said that self-efficacy depends on past experience at testing and evaluating courses of action against expected outcomes.

2.2.5 Sources of Self-Efficacy

Beliefs about self-efficacy are derived from four main sources of information: mastery experiences, modelling or vicarious experience, verbal persuasion, and physiological and affective factors (Bandura, 1997). Each of these information sources of self-efficacy carries an idiosyncratic array of efficacy indexes. Mastery experiences refer to one's own previous experiences and performances of success at a task within a course of action. Mastery experience is recognized as the most powerful source of efficacy information among the four primary sources (Usher, 2009). Personal successes and accomplishments help to create a solid belief in one's perceived efficacy. However, if individuals undergone only easy successes, they will eventually struggle in front of difficult setbacks and failures. It is only through facing challenging difficulties and obstacles people can exert more control over events by altering their failed experiences to successful ones (Bandura, 2012). Vicarious (observational) experience or social modelling refers to the social comparison between oneself and other successful people having similar abilities. Perceived self-efficacy can be affected by successful modelling influences. Modelling that applies effective enduring strategies can raise the self-efficacy of the observers to an extent where they would believe that through using similar strategies, the same success would be guaranteed (Blumenthal, 2014). In a classroom setting, classroom models (e.g., teacher and peers) are major sources of vicarious efficacy information (Schunk, 1991). Verbal or social persuasion is the third source of self-efficacy. Those who receive verbal persuasion related to their capabilities to master certain activities are more likely to exert more effort in the face of difficulties. Performers usually receive precursory efficacy beliefs emphasizing personal capabilities in the form of 'evaluative feedback' (Bandura, 1997, p. 101). Schunk (1984a) specified that receiving ability feedback at an early stage of skill development has a greater influence on enhancing the beliefs of personal efficacy. Finally, physiological and affective states can indicate the arousal or hindrance of personal self-efficacy. Affective states include emotions such as, anxiety, stress, fear reactions, tension, nervousness and tiredness, which can play a role in altering individuals' emotional state and perceptions of self-efficacy. For example, by enhancing physical states and reducing levels of anxiety and stress, efficacy beliefs will increase paving the way for performance enhancement (Bandura, 1997).

The cognitive processing of varying sources of self-efficacy has a significant contribution in shaping the outcomes of personal efficacy beliefs. In educational context, this means that those main factors contributed to the development of self-efficacy were higher in learners with high self-efficacy compared with their peers. Zuo and Wang (2016) conducted a qualitative study aimed at exploring the diverse sources of self-efficacy development among five Chinese doctoral students in the United States by investigating their use of English as a second language in a South-eastern university. In consonance with Bandura's (1997) four sources of self-efficacy, their study

revealed main factors orchestrated to impact the students' self-efficacy beliefs in their use of English to include (1) past performance, (2) peers' and advisors' influence, (3) social persuasions, (4) physiological and affective states, (5) self-awareness of English proficiency, (6) familiarity with the given task and its level of difficulty, (7) personal interest in learning. It was suggested that in order to enhance the students' self-efficacy beliefs in learning English and to fulfil their academic attainments professionally, it is crucial to examine and explore the factors and determinants that affect the development of self-efficacy beliefs.

2.2.6 Self-Efficacy Beliefs and Goal Setting

Goal setting is a vital mediator of Social Cognitive Theory, as it bonds self-efficacy beliefs to behavioural achievement (Bandura, 1986, 1997). Goal setting in SCT has some internal, social, and qualitative aspects. One of the key aspects of the goal setting is an internal aspect related to its circular relationship with self-efficacy. From a SCT perspective, although goals enhanced by self-efficacy beliefs usually lead to more persistence and successful accomplishments, the causation directionality explained by Bandura (1997) states that goals are primarily derived from self-efficacy beliefs, when one is performing a task with a high level of difficulty. In other words, Bandura (1997) states that individuals have to be confident in their capabilities to set goals, as setting goals can improve self-efficacy. However, self-regulation behaviours might not have the same direction of causality, as goals can sometimes alter the structure, and provide personal feedback and incentives to reinforce self-regulatory efficacy (Beauchamp et al., 2019).

In goal setting, it matters as to who sets the goals. Bandura (1997) argued that socially assigned goals can enhance people's self-efficacy beliefs by raising their sense of confidence (through verbal persuasion) in their abilities. Likewise, Zimmerman et al., (1992) found a causal relationship between social influences (parents' academic goal setting) and self-efficacy beliefs on students' personal goals and perceived self-regulatory efficacy, which impact positively on students' grades, achievement, and performance.

As determined by SCT, goal specificity is an essential requirement that ensures more effective goals, leading to a higher level of task performance (Bandura, 1986; Latham & Locke, 1991). The quality of the goal, and how specific it is, are key to goal setting. However, Locke and Latham's (1990, 2002) goal-setting theory explained that, under certain conditions, setting specific or challenging goals may actually weaken performance. These specific circumstances include: (a) setting specific or challenging goals during the initial stages of learning and exploring a new complex activity with a lack of strategy training (Kanfer & Ackerman, 1989); (b) heuristic tasks (Earley et al., 1989); and (c) performing well under pressure instantly without undergoing any

strategy training. In other words, setting specific or challenging goals is insufficient if you lack the necessary skills and strategies to reach them.

Goals can lead to better outcomes, and they become more effective if they are packed with additional rewards, such as feedback (Erez, 1977) and planning (Latham & Locke, 1991; McEwan et al., 2016). Although goals can be effective, whether they are devised collaboratively through group goals, assigned by others, or self-set (Beauchamp et al., 2019; Locke & Latham, 2006), the mechanism of each goal-setting intervention influence may differ from one source to another.

2.2.7 Self-Efficacy Beliefs and Academic Outcome

The role of self-efficacy beliefs has received increasing attention in the field of education since the late 1980s. Pajares (2002) pointed out that self-efficacy has been investigated in three areas of educational research. Among these areas, some studies examined the linkage between self-efficacy beliefs and academic performance and achievement. A growing body of literature has supported the associations between students' academic self-efficacy and their achievement within the educational setting (Zimmerman, 1995). Self-efficacy has a positive effect on the amount of effort which students spend on tasks (quantity), as well as on the type of effort exerted (quality), through applying more advanced cognitive and metacognitive processing strategies, compared with their peers with lower self-efficacy beliefs (Pintrich & De Groot, 1990).

In their meta-analyses of self-efficacy studies that were published from 1977 through 1988, Multon et al. (1991) explored the relationship between self-efficacy beliefs and academic performance and persistence. They found positive and statistically significant relationships between self-efficacy beliefs and academic performance outcomes, as well as other factors that moderated this relationship. Within higher education and college level students, Honicke and Broadbent (2016) published a systematic review of studies conducted on self-efficacy and academic performance between 2003 and 2015. The findings revealed a moderate correlation between academic self-efficacy and academic performance. They also identified some moderating factors, including effort regulation, strategies, and goal orientation. Moreover, highly efficacious students expend more effort, adapt effective learning strategies, and show more persistence, all of which have a positive influence on their academic achievement. Students higher in self-efficacy also tend to associate with like-minded peers who are more academically oriented compared with low self-efficacy peers (Bandura et al., 1996).

2.2.8 Significance of Self-Efficacy in Language Learning

Self-efficacy for learning was defined by Schunk (1996, p. 8) as "participants judge of their

capabilities for learning to solve types of problems, write types of paragraphs, or answer types of questions, rather than their certainty for being able to successfully perform those tasks". In the domain of language learning, studies in this area have investigated the relationship between self-efficacy and the general competence of language learners (in terms of knowledge and skills), in addition to achievement in specific language skills and students' self-efficacy beliefs. Mahyuddin et al. (2006) investigated the relationship between the self-efficacy of secondary school ESL students in Malaysia and their English language achievement. This descriptive-correlational study conducted on 1,146 students from eight secondary schools showed a positive correlation between students' English language efficacy and their English language achievement outcomes. Students with high self-efficacy often demonstrate better performance compared with their counterparts with low efficacy beliefs.

Similarly, Ayoobian and Soleimani (2015) explored the relationship between the self-efficacy of 120 Iranian medical students and their language proficiency. The findings corroborated the evidence of a positive relationship between students' self-efficacy and their language success. Additionally, it was found that the students' major had an impact on both self-efficacy beliefs and language proficiency. Alrabai (2018) conducted a study aimed at exploring the association between self-efficacy in language learning among EFL Saudi learners and their academic performance. The study included 221 Saudi EFL undergraduate students whose major is English at university. Self-efficacy was measured using a Questionnaire of English Self-Efficacy (QESE), while their academic performance was assessed by measuring students' total score on final exams of the four language skills (listening, speaking, reading, and writing). The results revealed that the EFL participants in this study had low self-efficacy about their language learning and were also low English language achievers. This can be related to several reasons, such as poor mastery experience, a weak or lack of vicarious experience, the absence of verbal persuasion, low levels of motivation and autonomy, high anxiety, and negative attitudes towards language learning (Alrabai, 2018). However, students' self-efficacy had a positive correlation with their language attainments, indicating that students' language learning efficacy affects their language achievement.

In a similar vein, Chen (2007) examined the relationship between Taiwanese EFL learners' self-efficacy beliefs and their English performance. Specifically, she examined whether self-efficacy beliefs in English listening skills, English anxiety, and the perceived value of English language and culture make an independent contribution to the prediction of English listening performance. Results showed that English listening self-efficacy was a stronger predictor of English listening performance. Moreover, the dominant sources of self-efficacy appraisal in students' listening abilities were mastery experience and social persuasion (by teachers).

The aforementioned studies, which examined the relationship between self-efficacy and performance in language learning, assert the significant role of self-efficacy in learning a second or foreign language. Apart from that, knowing how EFL/ESL students perceive their learning capabilities can guide the planning and implementation of the best language learning strategies, helping to decrease the negative thoughts and emotions about their learning abilities.

2.2.9 Self-Efficacy for Self-Regulated Learning

Through regulating the cognitive, motivational, and behavioural processes, self-efficacy beliefs are postulated to affect an individual's choice, effort, persistence, and knowledge of the use of strategies (Graham & Macaro, 2008; Pajares, 1996; Schunk, 1991; Yang, 1999;). Self-efficacy has a great effect on cognitive processes. Most human behaviour, according to Bandura (1994), is governed by forethought. For instance, people with a higher sense of self-efficacy are hypothesised to set more challenging goals for themselves, work harder, and persist longer compared to those with a lower sense of self-efficacy, who tend to avoid confronting such challenges (Schunk, 1991). Moreover, self-efficacy beliefs constitute the main components of all mechanisms of self-regulation.

Zimmerman and Kitsantas (2005) further identified self-efficacy for learning as learners' beliefs about applying self-regulatory processes to learn. This indicates that self-regulation (planning, monitoring, and evaluation) is underpinned by learners' perceptions of how successful their behaviours might be and how confident they feel. Therefore, strong self-efficacy beliefs can positively enhance learning perseverance, especially with challenging tasks and obstacles (Bandura, 1986).

Studies that have explored the role of self-efficacy in language learning have also found that learners who have high levels of self-efficacy also have better control over their learning process and better knowledge of effective learning strategies (Vogely, 1995; Yang, 1999). As a result, better academic achievements can be accomplished through raising learners' perceptions of self-efficacy. Vafaeeseresht (2015) conducted a study to raise learners' perceptions of listening self-efficacy through metacognitive listening strategy instruction and to improve L2 listening comprehension and performance. A group of pre-intermediate English learners was divided into two groups, with the experimental group receiving metacognitive listening strategy instruction, while the control group did not. The results showed that the experimental group outperformed the control group significantly, indicating that metacognitive listening strategy instruction can raise learners' self-efficacy perceptions and L2 outcomes. Similarly, Rahimirad and Zare-ee (2015) investigated the role of metacognitive listening strategy instruction in improving self-efficacy among EFL Iranian

students. The findings confirmed the effectiveness of applying metacognitive listening strategy instruction in boosting learners' self-efficacy beliefs.

Higher levels of self-efficacy can foster more control and regulation over listening tasks and ensure successful strategy utilisation. This impact is evident in Rahimi and Abedi's (2014) study, which examined the relationship between Iranian EFL learners' listening self-efficacy and their metacognitive awareness of listening strategies. The findings indicate a significant correlation between listening self-efficacy and metacognitive awareness of listening strategies. Interestingly, listening self-efficacy was discovered to have a positive relationship with planning, evaluation, and problem-solving strategies, while being negatively correlated with mental translation strategies. More importantly, the results revealed that self-efficacy was linked to awareness of metacognitive strategies rather than to the actual use of metacognitive strategies.

Graham (2007) conducted a study to examine the effect of strategy training in listening on French learners by investigating the impact of strategies on learners' self-efficacy. The results showed that the group that received detailed feedback along with strategy training in listening benefited the most in enhancing some aspects of self-efficacy. On the other hand, the non-feedback group did not achieve the expected gains in listening comprehension.

Since the reciprocal interplay between self-efficacy and L2 outcomes based on strategy instruction did not follow a linear process in any of the previous studies, the present study attempts to unfold and examine the motivational changes that learners undergo while receiving strategic intervention, and how (or when) these changes impact on L2 outcomes.

2.2.10 Summary

In this section, an overview is provided on the development and validation of self-efficacy theory, with a focus on its relevance to language learning, academic achievement, and self-regulation. It is important to note that all the behaviours of the listeners studied in this research, such as strategic, motivational, and self-regulated, fall under the category of self-efficacy beliefs. Moreover, the primary objective of the intervention designed in this study is to improve the listening skills of EFL learners by boosting their self-efficacy, which is expected to enhance their motivation and self-regulated learning, ultimately resulting in better listening abilities.

2.3 Motivation

2.3.1 Learner Motivation

Motivation is one of the most important variables of individual differences in explaining the relative degree of success in learning a second language. From a socio-psychological perspective, second and foreign language motivation is conceived as a complex set of constructs that underlie the learning process and are influenced by learners' beliefs and perceptions. Williams and Burden (1997, p. 120) described motivation as a 'state of cognitive arousal', that provokes a 'decision to act', through exerting high levels of effort to achieve desired goals. L2 motivation has undergone different stages over the last four decades.

Ushioda and Dörnyei (2011) identified three main stages that L2 motivation underwent since the late 1950s. The first is the social-psychological period, which was predominant until the early 1990s. Robert Gardner and Wallace Lambert (1972) developed the model of L2 motivation, which posited a theoretical relationship between motivation and the learner's orientation or goal. Moreover, Gardner's theory postulates the importance of the social context and attitudes toward the L2 and its communities. Gardner's (2001) conceptualisation of the integrativeness (learner's interest in integrating into an L2 community through learning its language) was one of the most influential contributions to L2 motivation research (Piniel & Csizér, 2013).

The second period – the cognitive-situated period – highlighted an important relationship between motivation, cognition, and mental processes. The scholars in this period thus broadened the scope of the previous socio-psychological period to include exploration of other areas where L2 motivation had not previously been studied. The third period, called the process-oriented period, focuses on the dynamic aspects of motivation, especially the ongoing changes in motivation over time. Dörnyei and Ottó (1998) were the first to argue about the dynamic nature of motivation and that, unlike previous views, it should not be portrayed as static. The sociodynamic theory is one of the most recent L2 motivational theories. One of the approaches of sociodynamic theory is the complex dynamic system, which is concerned with the complexity of L2 motivation processes. This theory examines two or more variables in L2 motivation that are interrelated given the fact that human behaviour is the result of the interplay between motivation, cognition, and affective aspects (Guerrero, 2015). This complex dynamic system of L2 motivation will be the lens through which this study will examine students' motivation to listen in L2.

2.3.2 Motivational Self-Regulation

Viewing L2 motivation as a dynamic process in learning can hone our understanding of the

motivational changes that learners undergo due to various internal and external forces. Such changes can foster internal processes like monitoring and filtering, which in turn contribute 'in shaping the motivational outcome' (Dörnyei, 2005, p. 90). Framed within the Self-Regulation Theory (which will be discussed in detail in the next section), motivational self-regulation is an integral part of self-regulated learning. Motivational self-regulation postulates that motivated learners, namely, those who can maintain their motivation regardless of the challenges they face, tend to engage better in learning as compared to those who lack motivation or fail to regulate their motivation in response to the demands of learning. Ushioda (2003, p. 98) stressed the importance of raising learners' motivational self-regulation by guiding them through constructive and active thinking to face learning obstacles and by helping them perceive their own motivation as "emanating from within themselves, and thus to view themselves as agents of their own motivation and their own learning". Another way to enhance motivational self-regulation is by equipping learners with effective strategies to help them overcome their learning deficiencies.

2.3.3 Motivation and Self-Efficacy

Social cognitive theory hypothesised that motivation and performance can be enhanced through maintaining a harmonious interaction between self-efficacy beliefs and goal systems (Bandura, 1997, 2001). Diverse empirical studies have also pointed out that self-efficacy is positively linked to motivation and performance (Bandura & Locke, 2003). Maintaining a high level of self-efficacy beliefs is vital to stay motivated, especially when faced with multiple or persistent difficulties and setbacks (Bandura, 1995). Highly self-efficacious individuals plan ahead, expect positive outcomes, and assume that their failure is attributed to poor effort and ineffective strategies rather than a lack of potential. Furthermore, self-efficacy beliefs play a significant role in regulating motivation and have the advantage of boosting self-confidence, which could affect how much tension and depression individuals feel in demanding circumstances (Bandura, 1997). Moreover, when individuals are confident in their ability to learn, they are less likely to have negative thoughts or worry about potentially demanding activities and tasks. Likewise, high self-efficacy often contributes to creating feelings of calmness while tackling stressful tasks and situations (Pajares, 2008). As a result, self-efficacy beliefs have a significant impact on both motivational beliefs and the level of one's accomplishments and achievements.

2.3.4 Motivation and L2 Listening

Individuals' levels of motivation play a fundamental role in their success in L2 learning (Thayne, 2013). In a meta-analysis of studies conducted by Gardner and associates, the results of those studies revealed a significant correlation between motivation and L2 achievement (Masgoret &

Gardner, 2003). Despite the importance of motivation in learning a second language in general and L2 listening in particular, relatively few studies have investigated the relationship between motivation and L2 listening comprehension.

One of the first and most important studies that examined this relationship was a study conducted by Vandergrift (2005) aimed at exploring the relationships among motivation, metacognition, and proficiency in L2 listening comprehension. Through applying the motivational orientations of self-determination theory (Deci & Ryan, 1985), the results of this study found that students who used metacognitive strategies were also highly motivated. A number of relationships were also observed between motivation orientations, metacognition, and listening outcomes, although those relationships were not very significant. In another context, Hsu (2006) investigated the effects of motivation on Taiwanese college students L2 listening achievement and the impact of several individual and affective variables on enhancing L2 listening. The L2 listening motivation of 480 participants in that study was measured by the English Listening Comprehension Motivation Questionnaire, an instrument consisting of two sections: the English Listening Comprehension Motivational Scale (ELCMS), a 24-item, 5-point Likert scale survey designed to assess student motivation levels for practicing English listening comprehension; the English Listening Comprehension Practice Survey; and a part of the Attitude/Motivation Test Battery (AMTB). The findings report that gender and major had an impact on the motivation levels for enhancing L2 listening. Other factors, such as self-confidence, high expectations, and low anxiety, are also known to affect motivation to enhance L2 listening. The findings indicate a positive correlation between motivation and L2 listening outcomes.

2.3.5 Summary

Motivation is considered to be one of the most important variables related to individual differences that contributes to the success of L2 learning. Motivation theories have shown that there is a link between self-efficacy, motivation, and self-regulation. It is crucial to sustain a strong sense of self-efficacy in order to remain motivated, particularly when confronted with various challenges and obstacles over an extended period of time (Bandura, 1995).

Although there are a few studies that have examined the relationship between motivation and L2 listening proficiency, high levels of motivation in L2 listening are found to be important in increasing learners' persistence, enhance their cognitive processes and strategy use, and ensure students' behavioural engagement in classroom settings. Moreover, teachers need to pay attention to students' motivational attitudes, particularly their personal interest, task value, and both positive and negative emotions, as these attitudes can determine students' willingness to

engage in tasks in the future (Linnenbrink & Pintrich, 2003).

2.4 Self-Regulation

2.4.1 Introduction

This section discusses Self-Regulation Theory in terms of its origin and its relationship to Social Cognitive Theory. Models of self-regulated learning are further explained, including Zimmerman's cyclical model of self-regulated learning, which is the model to be adopted in designing the current study's intervention. This is followed by presenting the relationships between self-regulation and other affective factors (e.g., motivation) and L2 learning outcomes.

The next two sections following Self-Regulation Theory are: (1) Listening Strategies (Section 2.5), and (2) Listener Metacognition (Section 2.6). These two variables were chosen based on self-regulation theories and because of their direct relevance to the present study. Schunk and Zimmerman (2007) and Zimmerman (2008) recommended incorporating both self-regulatory strategies and metacognitive awareness into the broader understanding of how individuals regulate their thoughts, actions, and learning processes. The goal is to investigate how these two variables interacted and influenced listeners' beliefs (metacognitive awareness) and behaviours (self-regulatory strategies), which are fundamental aspects of Social Cognitive Theory.

2.4.2 Self-Regulated Academic Learning: A Social Cognitive View

Human regulatory skills are one of the most important qualities of human nature. Self-regulation has long been viewed as the essence of our personal agency perceptions, which reflect the basis of oneself. Social cognitive theory (discussed in Section 2.2.2) has long been concerned with investigating the mechanisms, functions, and developmental processes of self-regulation and its relevant subcomponents (Zimmerman, 2000). From a social cognitive perspective, there is a close link between self-efficacy and self-regulation as both constructs play important roles in shaping individuals' motivation, behaviour, and learning outcomes. In academic settings, students' academic performance and learning depend on multiple and diverse personal, socio-economical, instructional, and environmental factors (Pintrich & Garcia, 1991; Schunk, 1994; Zimmerman & Martinez-Pons, 1992). Self-regulation (or self-regulated learning) refers to the way in which people regulate their thoughts, emotions, actions, and environment following planned and systematic adaptations of skills that influence one's own learning process and motivation (Schunk, 1994b; Zimmerman, 1989, 2000). In educational settings, self-regulation is learners' ability to control and manage their own thoughts, motivation, emotions, and behaviours in order to achieve successful

outcomes (Schunk & Zimmerman, 2012). According to Zimmerman (1986), self-regulation is a self-direction process in which students engage metacognitively, motivationally, and behaviourally in their learning.

Concerning metacognitive processes, Zimmerman (1990) described self-regulated learners as those who are metacognitively active to plan, organize, self-control, give feedback, set learning goals, and self-evaluate and assess their learning process. From a motivational perspective, self-regulated learners demonstrate high self-efficacy and greater task interest (Zimmerman, 1986). The behavioural processes that are linked to the knowledge and use of the learning strategies of self-regulated learners, include seeking out information when needed, and taking the necessary steps to learn, while creating the required learning environment for self-improvement (Zimmerman & Martinez-Pons, 1986). Zimmerman (1990) further argued that teaching students different learning strategies would result in increasing self-regulation in learning. Therefore, he recommended that strategy instruction should concentrate on enhancing the three components of self-regulated learning: metacognitive, motivational, and behavioural processes. By doing so, self-regulated learners will be able to choose and apply effective self-regulated learning strategies to accomplish desired learning outcomes based on self-oriented feedback about learning effectiveness, or what Zimmerman (1990, p. 5) called 'self-oriented feedback loop'. Self-regulated learning also encompasses self-motivation, self-awareness, the learning methods, performance outcomes, and the social and environmental resources applied for learning (Zimmerman, 1994).

In order for students to self-regulate their learning, it is essential to give them choice and control over how and what they learn in the classroom. Providing students with some choice and options in their learning is evidently proving successful. Patall et al. (2008) conducted a meta-analysis of 41 studies that investigated the influence of choice on intrinsic motivation and learning outcomes in different settings among children and adults. The studies were grouped into five categories based on choice manipulation. These categories are: choice between activities, choice between multiple versions of a single activity, choice of instructionally relevant or irrelevant aspects of a task, choice that changes the effectiveness of the task, and choice of the reward received for the task (Patall et al., 2008). The results revealed that the implementation of appropriate self-regulatory choices, enhanced intrinsic motivation, effort, performance, competence, and autonomy among learners. Students' lack of knowledge of effective self-regulatory strategies or misuse of self-regulatory processes may end up in low performance in self-regulated dimensions such as motives, methods, outcomes, and the use of resources (Schunk & Ertmer, 2000).

Viewed within the conceptual framework of Social Cognitive Theory, Zimmerman (1989) assumed a reciprocal causation within a triad of influencing mechanisms of self-regulated learning. In

conformity with Bandura's (1977, 1986) model of triadic reciprocality, self-regulated learning is driven by the reciprocal causation of three determinants: personal, behavioural, and environmental forces. However, the bidirectional influence between determinants does not mean that they share the same degree of effect (Bandura, 1986). This means that personal influences, for example, may be stronger than environmental ones in some contexts. This explains the success of self-regulated learners, who are given opportunities to strategically use personal influences to regulate their own actions (behaviours) and learning environment (Zimmerman, 1989). Based on this triadic analysis of self-regulated functioning, although learning strategies can be constructed from the immediate learning environment (e.g., planned instruction), they have to adhere to central, personal processes (e.g., goal-setting and self-efficacy perceptions) to be conceived as self-regulated (Zimmerman, 1989). Additionally, in order to understand learners' self-regulated learning processes, researchers must not neglect the effect of the differences in learners' contexts and their personal experiences.

Self-regulated learners tend to demonstrate great responsibility for their learning and diligence towards the achievement of their goals. It is through that this is because they view their proficiency development as a combination of strategies and self-control processes (Zimmerman & Martinez-Pons, 1986, 1988, 1990). Unlike their passive classmates, self-regulated learners are guided by their metacognitive learning process in their awareness of the strategic associations between their self-regulatory process and learning outcomes and their strategic action to achieve their academic goals (Zimmerman & Martinez-Pons, 1990). Therefore, to maintain self-regulated learning, awareness of the use of learning strategies, perceptions of self-efficacy, and diligence in achieving learning goals are essential for learners to master their own learning processes. Providing self-regulation training for students may not only improve their learning process, but it could also enhance their self-efficacy perceptions and motivation to self-regulate their performance (Zimmerman, 1990).

2.4.3 The Self-Regulated Learning Model

This section explains the self-regulated learning model and how it is influenced by motivational factors (e.g., self-efficacy). This model is adopted in the design of the intervention because it brings together cognitive, metacognitive, behavioural, motivational and affective processes of learning (Panadero, 2017). Such comprehensive model is assumed to enhance the listening proficiency outcomes, which is the central aim of this study.

The phases of self-regulation in social cognitive models have been identified and discussed by several researchers (Schunk & Ertmer, 2000; Zimmerman, 2000). The self-regulated learning

model comprises three phases: forethought and planning, performance monitoring, and reflection on performance. In a learning situation, the first phase of forethought and planning is when learners implement various motivational beliefs and goals to plan a specific action or course of action. The second phase of performance monitoring is when learners tend to monitor their performance and motivation together and readjust their learning strategies to achieve specific outcomes. The phase of self-reflection on performance occurs after task completion to understand and evaluate the whole process of the learning experience and learning outcomes (Wigfield et al., 2011).

It was found that self-efficacy has an active influence during all three phases of self-regulation. During the forethought and planning (pre-task) phase, high self-efficacy for learning is required for attaining specific goals. Goal setting is a major part of the forethought and planning phase because it can serve as an indicator of learners' performance and help them decide whether they must regulate their behaviours to meet specific goals or not. Research on goal orientations has identified two types of goal orientations: mastery (mastery approach vs. mastery avoidance) and performance (performance approach vs. performance avoidance) goals. Mastery approach goals deal with improving one's skills through learning, while mastery avoidance goals are related to misunderstanding and perfectionism in learning. Likewise, performance approach goals are linked to competence and surpassing others, while performance avoidance goals are intended to make one avoid looking incompetent compared with others (Elliot, 2005; Maehr & Zusho, 2009). These goal orientations can affect the self-regulation process in different ways. For example, learners oriented toward the mastery approach would concentrate on improving their skills when performing a task and would apply appropriate strategies to complete the task successfully. On the other hand, low-achieving learners would apply performance avoidance goals to avoid appearing incompetent to others by avoiding activities that would result in such outcomes (Zimmerman & Cleary, 2009).

Moreover, self-efficacy and competence perceptions (self-perceptions of individuals' capabilities during task performance) play major roles in students' self-regulation processes, and both have positive correlations with achievement outcomes (Bandura, 1997; Wigfield et al., 2006). Students with high self-efficacy beliefs set more challenging goals, tend not to avoid difficult tasks, and demonstrate more strategic behaviours when planning to accomplish tasks successfully (Pajares, 2008). Task value is another important factor for self-regulation during the forethought phase. If the students do not value the tasks, they are less likely to be enthusiastic about setting challenging goals for the task or planning the strategies to be used to achieve the required outcomes. Therefore, it is essential to enhance students' task values, even if they believe they are capable of performing them, in order to improve self-regulation and positively influence achievement

learning behaviours (Zimmerman, 2000; Wigfield et al., 2011). Performance monitoring during the task phase demonstrates self-efficacy for ongoing progress, where self-perceptions of progress would enhance perceptions of self-efficacy, motivation, and strategy use (Ertmer et al., 1996; Schunk, 1996). This is evident in cognitive strategy use and the types of strategies or metacognitive processes that students would choose or adapt to perform a task during their academic performance (Pintrich & Zusho, 2002).

The third phase of self-reflection (post-task) is the phase where self-regulators evaluate and reflect on their progress and where high self-efficacy is realised as self-efficacy for achievement. Attributions for performance (to ascribe or assign attained outcomes to causes or behaviours) are critical in self-regulation because different attributions of success or failure may or may not lead to positive motivation. For instance, when students attribute failure to their lack of ability, they tend to give up easily, while if they attribute their failure to a lack of effort and poor application of strategies, they tend to affect students' motivation, self-regulation, and performance, positively (Graham & Williams, 2009). It was also found that providing students with feedback after a successful performance would enhance their self-efficacy and self-regulation to keep improving their learning skills (Schunk & Rice, 1987). The information gained from the feedback might also impact students' choices about how to approach activities in the future and their self-efficacy for achievement (Carver & Scheier, 2000).

2.4.4 Zimmerman's Cyclical Model of Self-Regulated Learning

In light of the foregoing, this study will adopt Zimmerman and Moylan's (2009) three-phase cyclical model of self-regulated learning (See Figure 2.2). Zimmerman (2000) asserts that self-regulation is not just a mental ability or a performance skill, but a self-directed and transformational process where learners transform their abilities into learning skills. Through this transformation, learners undergo dynamic interactions of cognitive, behavioural, and affective processes. Although Zimmerman and Moylan's (2009) model comprises three sequential phases during the learning process – forethought, performance, and self-reflection – the association between the constructs in this model and behavioural changes has always been viewed as reciprocal, not causal.

For example, self-motivation can foster L2 learning success, but reciprocally, experiencing L2 learning success can also enhance self-motivation to perform better. These cyclical interactions between constructs are well-explained in great detail in every phase of the model. Although this model has been criticised for not including the influences of the social environment during the self-regulation process, Zimmerman and Moylan's (2009) model is still a comprehensive one that

covers the multi-faceted and relevant aspects of self-regulation. Furthermore, it provides a theoretical framework for self-regulated learning (Panadero & Alonso-Tapia, 2014).

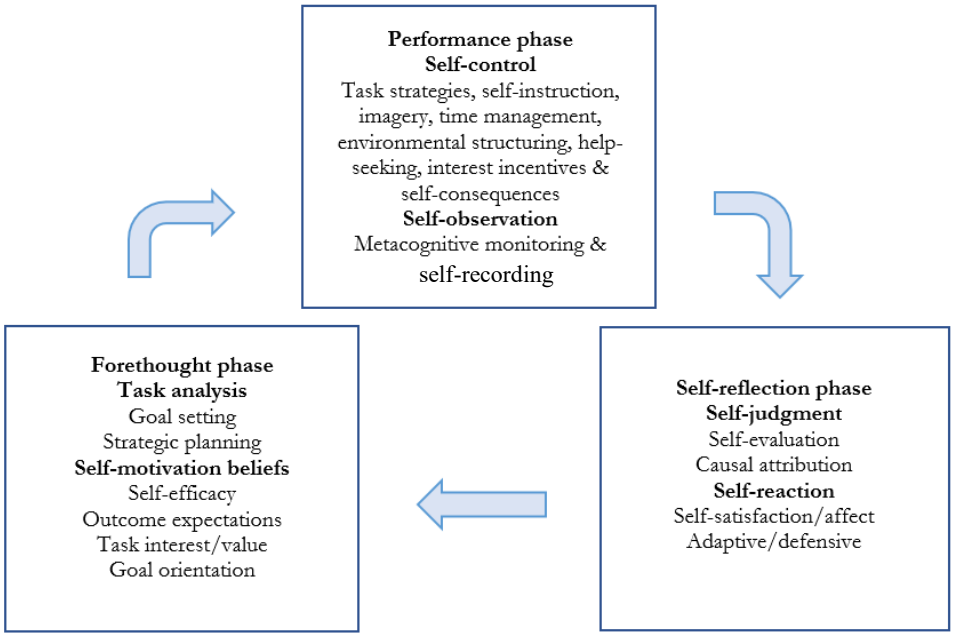

Figure 2.2 Phases and processes of self-regulation according to Zimmerman and Moylan (2009).

2.4.5 Self-Regulation in Relation to Motivation and L2 Outcomes

In their attempt to explain students' own initiative in gaining knowledge and competence, self-regulated learning theorists consider students' motivational processes as 'interdependent' with the learning processes, which cannot be separated from each other (Zimmerman, 1990). Although there is still no precise explanation of how these processes interact, all hypotheses and theories agree on the assumption that self-regulated learners perceive learning outcomes as 'tangible' (concrete) or 'intangible' (abstract) personal implications (Zimmerman, 1990, p. 11). While behaviourists focus on tangible learning outcomes, such as material rewards and social gain, cognitivists focus on intangible learning outcomes, such as self-efficacy and self-realization (Zimmerman, 1989).

In their conceptualisation of students' self-system processes, McCombs and Marzano (1990) based their formulation of self-regulated learning and behaviours on an integrative and self-as-agent framework. Students' awareness of themselves as agents, which is a sense of self-efficacy, will enhance the learning goals and competency development. From their perspective, relying solely on cognitive ability is insufficient to generate self-regulated learning and thus, successful attainment. Students are also required to have the motivation and desire to engage in self-regulation. Students' realisation that they are creative agents and responsible for accomplishing their own self-development and self-determination learning goals could serve to motivate them to

self-regulate their learning process, while understanding and appreciating their own capabilities to achieve those goals. Therefore, to promote and enhance self-regulation capabilities, the integration of skill and will is a requirement to achieve the optimal desire in learning. In this regard, self-monitoring of one's performance is also essential because it heavily depends on students' ongoing motivation. McCombs and Marzano (1990) also stressed that students' interpretation of the self as agent is enhanced through their metacognitive self-awareness capabilities for self-regulation. It also highlights the importance of language learners to evaluate the usefulness of their self-regulatory activities.

2.4.6 Summary

Second language learning research has identified factors that are associated with academic success among motivational and academic variables. Self-efficacy and self-regulation skills are two of the strongest predictors of academic success (Bandura, 1997; Schunk, 2008). Variable proficiency learners can benefit from enhanced self-efficacy beliefs and self-regulated learning. Enhanced learners' self-efficacy beliefs can be achieved by guiding learners through establishing personal control over their learning process to complete challenging tasks. Such cognitive beliefs can positively influence learners' behaviours and academic performance. Teaching students effective strategies is highly recommended because it: (a) enhances self-efficacy, such as by experiencing early success and observing other peers' successful performance; (b) helps students regulate their thoughts and actions and be responsible for their learning progress; and (c) guides students to cope with academic challenges and setbacks (Hsieh et al., 2012).

It has also been shown that a high sense of self-efficacy is positively correlated with L2 academic achievement (Hsieh & Kang, 2010) and language skills, such as L2 listening proficiency (Graham, 2011). By giving students the opportunity to take control over their listening process through explicit strategy instruction, students could overcome the listening challenges and become able to adapt their strategic behaviour according to the listening task. Most importantly, explicit strategy instruction must address L2 listening as a 'skill to be developed and taught' rather than an 'activity to be practised' (Graham et al., 2011).

2.5 Listening Strategies

2.5.1 L2 Learning Strategies

The past thirty years have seen an increasingly rapid development in the field of second language (L2) learning strategies. Learning strategies employed by students are specific behaviours, actions,

and steps or techniques, particularly those done consciously, to improve their academic progress and internalise, store, retrieve, and apply the L2 (Oxford, 1990). Strategies may also refer to the tools used for achieving active and self-directed involvement, as is necessary for enhancing L2 communicative ability (O'Malley & Chamot 1990; Wenden 1991; Wenden & Rubin 1987).

In second language learning, a strategy can be defined as a deliberate, goal-oriented action or behaviour used by learners to enhance their learning and performance (Chamot, 1987; Griffiths, 2008, 2013, 2017; Plonsky, 2011). Another definition to support this view was offered by O'Malley and Chamot (1990, p. 1), who described learning strategies as "the special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information". Hence, learning strategies not only ensure academic success but also have the potential to foster greater independence, autonomy, and a lifelong learning mindset in language learners (Allwright, 1990; Little, 1991).

There is a lack of agreement on what actions can be classified as strategies for learning a second language, and how they are distinct from other actions which learners take. Discussions on language learning frequently mix together learning, teaching, and communication strategies, and these terms are applied to the same actions. Additionally, even among the set of learner activities, most commonly referred to as learning strategies, there is a lot of uncertainty about the meanings of specific strategies and how they relate to each other in a hierarchy (O'Malley et al, 1985). Based on a content-analytic study, Oxford (2016) provided an encompassing definition of L2 learning strategies, which is also a key element of the strategic self-regulation model (S2R) (to be discussed in Section 2.5.6). Oxford's (2016, p. 48) definition stated that:

> L2 learning strategies are complex, dynamic thoughts and actions, selected and used by learners with some degree of consciousness in specific contexts in order to regulate multiple aspects of themselves (such as cognitive, emotional, and social) for the purpose of (a) accomplishing language tasks; (b) improving language performance or use; and/or (c) enhancing long-term proficiency. Strategies are mentally guided but may also have physical and therefore observable manifestations. Learners often use strategies flexibly and creatively; combine them in various ways, such as strategy clusters or strategy chains; and orchestrate them to meet learning needs. Strategies are teachable. Learners in their contexts decide which strategies to use. Appropriateness of strategies depends on multiple personal and contextual factors.

A certain strategy is neither inherently good nor bad; rather, it is neutral until its use context is considered. It is only useful as a strategy if: (a) it relates well to the L2 learning task; (b) it fits the

learner's preferred learning style (an important ID factor to be discussed further below in Section 2.5.2) and, (c) it is applied effectively and fits in with other related strategies (Oxford, 1990). Such strategies "make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (p. 8). However, learners may be unaware of them until their teachers make them aware and enable them to apply the strategies (Nyikos & Oxford, 1993).

In L2 learning, strategies are most often conscious and goal-driven, particularly at the early stages of a new language task (Chamot, 2005; Oxford, 1990). The familiarity of a learning strategy through regular repetition and use would lead to its automaticity (Chamot, 2005). The main challenge with automating or turning strategies into procedures is that it removes consciousness from the process. According to cognitive theory, when a learning strategy is fully conscious, it is considered declarative knowledge. However, when it becomes proceduralized through practice and is no longer conscious, it becomes 'procedural knowledge' and is no longer considered a strategy (Oxford, 2016, p. 40). This automatic and unconscious action is referred to as autonomous (Anderson, 1985), which means that it is effortless and rapid. One advantage of this automatization is that it frees up working memory, allowing for more information to be processed (Chen, 2005). Therefore, if a strategy is used frequently and becomes automatic, it is no longer considered as a strategy. Some researchers refer to this as a process, but this can be confusing. Oxford (2016) prefers to call this action a habit, which no longer requires the learner's awareness or cognitive effort.

Despite their pivotal role in the L2 learning process, L2 learning strategy researchers have consistently overlooked the significance of affective learning strategies, specifically those related to emotion regulation (Oxford & Gkonou, 2021). More specifically, affect and emotion have been neglected in L2 learning research because most of the discussions concentrate on the acquisition and use of new language (Garrett & Young, 2009). This neglect can be attributed to various reasons, including methodological challenges, a historical focus on cognitive aspects, and the perception of affective factors as elusive or difficult to quantify. One key criticism is the predominant focus on cognitive strategies in L2 learning research. Oxford (1990) emphasizes that cognitive strategies, such as memorization and metacognition, have received the lion's share of attention in the literature, often overshadowing affective dimensions. This cognitive bias can be attributed to the more tangible and easily observable nature of cognitive strategies, which lend themselves to traditional research methods. Moreover, methodological challenges in studying affective strategies have hindered their integration into research. Affective factors are inherently subjective and context-dependent, making their measurement and quantification more complex. Research paradigms have historically leaned towards quantitative approaches that can yield replicable results, whereas affective aspects may require more qualitative or mixed-methods

designs (Sison, 2022). However, recognizing the importance of affective strategies in language learning and addressing these critiques is essential for a more holistic understanding of L2 learning processes.

2.5.2 Types of Learning Strategies and Strategy Instruction

Many scholars have sought to classify language learning strategies (O'Malley & Chamot, 1990; Oxford, 1990; Rubin, 1987). However, Oxford's (1990) taxonomy of language learning strategies overshadowed previous language learning strategy classifications. Oxford's (1990) model of strategy classification identified six major groups of L2 learning strategies, which were considered to be the most comprehensive taxonomy of learning strategies during that time. The Strategy Inventory of Language Learning (SILL), originated by Oxford (1990), is one of the most renowned inventories applied in the field of research strategies aimed to measure general strategy use by language learners. Basically, Oxford (1990) categorised strategies into two types; direct and indirect strategies. Direct strategies 'directly involve the target language' (Oxford, 1990, p. 37). They include memory, cognitive, and compensation strategies. On the other hand, indirect strategies provide 'indirect support for language learning through focusing, planning, evaluating, seeking opportunities, controlling anxiety, increasing cooperation and empathy and other means' (Oxford, 1990, p. 151). Indirect strategies include metacognitive, social, and affective strategies.

Although Oxford referred to the possibility of making distinctions between these six language learning classifications, the finer boundaries are still 'fuzzy', especially since L2 learners might employ more than one strategy at a time (Oxford, 2001, p. 167). Moreover, compensation strategies in Oxford's classification have received criticism from Dörnyei (2005), who explained that compensatory strategies are more related to language use and function than to language learning (Rose, 2012). Dörnyei (2005) also stressed that these two processes are quite different in terms of functional and psycholinguistic mechanisms, and should, therefore, be dealt with separately. The definitional fuzziness of the main learning strategy classification has been a topic of constant criticism. For example, although it has been argued that mnemonic strategies comprise a subclass of cognitive strategies, there is a definitional fuzziness in distinguishing between cognitive strategies and mnemonic strategies (Rose, 2012). Macaro (2006) pointed out several general concepts in language learning strategies that have received definitional fuzziness, such as strategies' applicability across different learning situations and contexts, and whether strategies are integral or additive to the language learning process and development in the long-term. In addition, learning strategy research has been receiving increasing criticism due to conflicting findings and methodologies (Skehan, 1989). The conceptualization of learning strategies is thus inconsistent and evasive (Dörnyei & Skehan, 2003), and there is a lack of

consensus on the defining criteria of learning strategies (Tseng et al., 2006).

Overall, strategies for learning to improve listening can be divided into three types instead: (a) strategies employed to learn a language; (b) strategies related to language use and function; and (c) strategies assigned for language testing (Cohen, 2011). As mentioned in the previous section (2.5.1), Celce-Murcia et al. (2001) identified the conditions under which learners could gain optimal benefits from applying language learning strategies as including: (a) a clear relevance between the applied strategy and the L2 task; (b) suitability of the strategy used to the students' preferred learning style; and (c) effective use of the strategy and linking it with other related strategies. Learning styles are potentially problematic because they are not dichotomous but a continuum of various styles which may describe individual learners (Celce-Murcia, 2001). Also, one of the main features of learning strategies is that they are intentionally invoked and consciously controlled by the learners (Pressley & McCormick, 1995). Thus, all definitions of learning strategies imply a conscious movement towards achieving specific language learning goals (Bialystok, 1990; Oxford, 1996).

A considerable amount of literature has been published on the types of strategies that learners apply in relation to other variables, such as linguistic proficiency, age, gender, task, motivation, and autonomy (Green & Oxford, 1995; Mogagwe & Oliver, 2007; O'Malley et al., 1985; Oxford & Nyikos, 1989). Subsequently, experimental research on L2 strategy instruction (henceforth referred to as SI) has become a major area of interest within the field of L2 language learning strategies. SI is defined as a teaching practice that provides students with useful techniques and strategies to help them learn the content or skill they need to acquire and improve their L2 learning (Chen, 2007; Plonsky, 2011; Taylor et al., 2006). Thus, the main goals of SI are to: (a) raise L2 learners' awareness of the strategies that facilitate their language learning (Ardasheva et al., 2017), and (b) prepare self-regulated learners who have control over their actions, thoughts, and feelings to achieve learning success (Ortega, 2014).

Historically, learning strategy theories have undergone a major shift from viewing the learner as a passive recipient of information and knowledge, as one who can be trained to improve the learning outcomes, into an active, self-determined learner. This raised the importance of considering language learners' needs and adopting learner-centred approaches (to be discussed in the next section 2.5.3). Such a shift later led to the emergence of various 'cognitive strategies' (Weinstein, 1978; Weinstein et al., 1979). Cognitive strategies were advocated by many researchers who argued that learning strategies are techniques or operations used by learners to support the acquisition, storage, and retrieval of information (Dansereau, 1985; Rigney, 1978). Therefore, in L2 learning, language learning strategies (LLS) are the actions taken by L2 learners to

develop their proficiency in learning a new language efficiently (Griffiths, 2007).

2.5.3 Language Learners and Learner-Centred Approaches

Much of the research on language learning strategies has been devoted to investigating what characterises learners who outperform their peers in learning a foreign or second language (L2), or as Rubin's (1975) described them, good language learners (GLLs). The purpose behind this interest in understanding the characteristics and practices of GLLs was to transfer these language learning skills to less proficient learners, thus improving their language learning process (Plonsky, 2011).

However, portraying the good language learner (GLL) as a cognitive individual, who is mainly driven by his or her intrinsic motivation, has been criticised by Norton and Toohey (2001), who emphasised the salient role of sociocultural effects in shaping a good language learner. They described how the environment and real-life context can also have an impact on facilitating the language learning process in their study of two Polish-speaking learners of English in Canada. Even though a plethora of GLL research has adopted a cognitive psychology approach, there is limited literature to examine GLL as grounded in various contextual realities, such as being raised in a bilingual family, exposure and accessibility to language learning materials, peer relationships, and the use of technology in language learning.

Moreover, the sole reliance on the cognitive psychology perspective in exploring GLL has weakened its relevant methodological approaches, which remain heavily dependent on survey methods in language learning strategies. The overuse of strategy questionnaires may obliterate the vital role of contextual dimensions in learners' strategy use (Dörnyei, 2005; Rose, 2012). While some people may be naturally strategic thinkers, others can develop this skill through deliberate effort and exposure to strategic situations. Creating conditions that promote strategic thinking can help learners enhance their strategic abilities and enable them to perform more effectively in various contexts; therefore, such contextual factors in strategy use cannot be overlooked. Besides, questionnaires tend to primarily focus on the frequency and preferences of strategy use (quantity/number) at the expense of the dynamicity and actual use of language learner strategies (quality/manner) (Wray & Hajar, 2014). Consequently, it is difficult to precisely determine the real qualities of GLLs, which in turn hinder the process of conceptualising successful language learning instruction (Gan et al., 2004). In any case, more empirical language learning strategies are needed to utilise qualitative methods along with quantitative methods to help depict a holistic and dynamic image of actual language learners' use of listening strategies.

As a result, much attention has been devoted away from GLL to language learning strategists. The

last 40 years have witnessed the growth and widespread awareness of language learning strategies in language acquisition in general, and in second language (L2) learning in particular. One of the main reasons behind this interest is related to the variations in academic achievement in second language learning by L2 learners, although, they usually encounter the same amount of input and instruction in the target language in instructional settings (Wray & Hajar, 2014). These individual differences in language learning have raised language learning researchers' interest in digging into the realms of language learning strategies in order to gain a comprehensive understanding of individual learners' roles and contributions to their own language learning processes. This was evident in research on L2 language learning strategies and SI, which have adopted individualised, dynamic conceptualizations of the L2 learning process to embrace a learner-centred approach (Nunan, 1988, Tudor, 1996).

2.5.4 Importance of Learning Strategies

Considering individual learning styles is one common learner-centred approach. It is supported on the premise that teachers are best able to assist their students in understanding when the knowledge is presented in accordance with their preferred learning style (Ellis, 1989). However, when it comes to strategy use, relying too heavily on learning styles to guide instruction or learning may be problematic (Riener & Willingham, 2010; cited in Newton, 2015). This is because strategies or techniques that are effective for one individual may not necessarily be effective for another, even if they have the same learning style. In addition, learning styles may be more dependent on individual preferences rather than actual cognitive processes, which can make it difficult to apply strategies across different learners and contexts. Besides, as mentioned earlier, learning styles are not dichotomous but a continuum of various styles describing individual learners (Celce-Murcia, 2001).

Rather than focusing on learning styles, it may be more effective to use evidence-based strategies that are supported by research and have shown to be effective across a range of learners and contexts (Davies, 1999). This approach can help to ensure that learners are developing the skills and strategies they need to succeed, regardless of their individual learning style. Another important factor in successful learning is the compatibility between students' learning styles and a teacher's instructional style (Dunn & Griggs, 1995), as a mismatch could impact negatively on learning (Felder & Henriques, 1995).

In the L2 arena, language learning strategies are of utmost importance for several reasons. First, researchers and language educators can gain a deep understanding of the metacognitive, cognitive, compensatory, social, and affective processes that occur during strategy use by second

language learners. The second reason is that low-achieving students can be taught strategies through planned and direct instruction in order to help them experience success in language learning (Grenfell & Harris, 1999). Third, many empirical studies have found that strategic learners get better outcomes when provided with effective strategy instruction.

In their meta-analysis and systematic review of SI literature, Hassan et al. (2005) and Plonsky (2011) found a significant correlation between LLS and language learning outcomes in the majority of SI studies. For example, in L2 listening strategy research, there is emerging evidence that L2 learners who apply strategic approaches to facilitate listening comprehension and understand the input more effectively tend to process new information, learn it, and retrieve it better than their counterparts who do not apply such strategic approaches (Chamot, 2005). Taguchi (2017) conducted another study to investigate the relationship between listening comprehension of Japanese learners of English and listening strategy use through implementing metacognitive strategy instruction in teaching the skill of listening. The results revealed that their listening proficiency and learning outcomes were positively correlated with strategy use, regardless of the different impacts of strategy instruction on advanced and less proficient learners.

Research into language learning strategies found that low-achieving learners showed different uses of language learning strategies than their successful counterparts. Most less-able learners tend to apply strategies randomly with uncontrolled strategic behaviour, and they lack the appropriateness and flexibility of applying language learning strategies compared with more effective learners, who, in contrast, apply well-orchestrated strategies systematically and directly, toward performing specific L2 tasks (Abraham & Vann, 1987; Chamot et al., 1996). In a similar vein, Nunan (1991) found that more effective learners outperformed their peers by developing the ability to reflect on and articulate their own language learning processes.

Green and Oxford (1995) examined language learning strategy use among English learners in Puerto Rico and discovered that more effective learners applied strategies for more active involvement than less effective learners. However, the researchers reported a difference in the number and type of strategies applied in a second language setting from those in a foreign language learning environment. It indicated that second language learners tend to apply more strategies with an increased frequency compared with foreign language learners.

Language learning strategies are usually promoted with an optimal goal, which is to help students become more successful and highly effective L2 learners. However, over the last thirty-five years of research on the correlation between language learning strategies and language learning success, some conflicting findings were found (Macaro, 2010). Moreover, the current direction of research on listening strategies is moving away from general definitions of ‘good’ language

learners and ‘language learning strategies’ that tend to oversimplify the complex process of language learning (Rose, 2015).

Although SI has led to a proliferation of empirical studies that have examined the role of SI across various contexts, pedagogical interventions, and outcome variables, the issue of SI effectiveness has received considerable critical attention. This is due to methodological shortcomings, such as the intricacy of factors affecting L2 strategy use, inaccuracies about the long-term effects of SI, and issues related to the validity and reliability of instruments (Bimmel et al., 2001; Chamot, 2005; Dörnyei, 1995; Green & Oxford, 1995; Nakatani & Goh, 2007; Oxford, 1993).

2.5.5 Strategic Competence

This change in educational thinking towards the learner has captured the attention of researchers and educators on strategies in second language acquisition (SLA) to incorporate 'strategic competence' as one of the three components of communicative competence: grammatical competence, sociolinguistics competence, and strategic competence (Canale & Swain, 1980; Canale, 1983). Language learning strategies contribute to enhancing communicative competence by helping L2 learners take an active part in authentic communication. Authentic communication refers to using the target language in a way that mirrors real-world communication situations. It involves practising language skills in situations that are relevant and meaningful to learners, rather than just memorizing isolated vocabulary or grammar rules (Martínez, 2003) without any applicable context. Strategic competence is the ability to employ verbal and non-verbal communication strategies to solve communicative breakdowns in order to deliver the correct meaning (Tarone & Yule, 1989). For example, L2 learners tend to compensate for lexical and syntactic gaps in their interlanguage system by improvising and taking advantage of choice (Cook, 1993).

However, providing EFL Saudi learners with authentic communication opportunities in educational settings is problematic due to different reasons. Among these are the limited resources inside the classrooms (e.g., lack of materials, technology, or access to native or fluent English speakers who can serve as language models), teacher training (i.e., teachers may not have the necessary training or support to effectively incorporate authentic communication activities into their lessons, which can result in a lack of confidence or understanding of how to design and implement activities that are meaningful and engaging for students), and finally the assessment requirements as some assessment methods may not align with more authentic communication activities. This can lead teachers to focus on more traditional forms of language instruction.

2.5.6 Strategic Self-Regulation Model of Language Learning [S2R]

Drawing on previous criticisms on language learning strategies in the 1980s and the 1990s, which can be attributed largely to conceptual fuzziness and conflicting findings, there was an urgent need for a new model to explain the concept of self-regulation in terms of learners' active involvement in the learning process, the strategies that impact on learning proficiency, and to provide explanations to previous misconceptions about language learning strategies. Moreover, the current directions of language learning strategy research are divided into two complementary venues, which tend to explore different dimensions of the same learning process. The first direction was adopted by Dörnyei (2005) who argued that self-regulation is more expandable than other constructs. In the field of psychology, the other direction looked into strategy research beyond language learning to tackle issues related to different dimensions, including context and task (Gu, 2003, 2012).

The previous directions in strategy research have led to the emergence of a new hybrid model in the field. Oxford's (2011) hybrid model is one of these integrated approaches to strategy research that examines both strategy use and self-regulation. Other researchers have also adopted an integrated approach in their studies. For example, Teng and Zhang (2016) devised a newly developed questionnaire, The Writing Strategies for Self-Regulated Learning (SRL), to explore the multidimensional structure of SRL strategies in EFL (English as a Foreign Language) writing. Moreover, the current direction for theory in language learner strategy would not only shift from language learner strategy research to self-regulation and re-conceptualize the language learner strategy research, but it would also position self-regulation within the existing conceptual framework of language learner strategy research (systematic). Rose (2012) stressed the need for a research framework that comprises both self-regulation and language learner strategy in task-specific settings in order to understand the L2 learning process and effectively differentiate strategy instruction. The Strategic Self-Regulation (S2R) model proposed by Oxford (2017) is an example of such a framework. This model emphasises the learners' role in actively applying effective learning strategies during the L2 learning process. It also seeks to explain the L2 learning process through multidimensional aspects, including self-regulation, strategies, metastrategies, metaknowledge underlying the metastrategies and tactics.

According to the S2R model, self-regulation is the process by which learners take an active role in their learning through setting goals, focusing on instruction, employing effective strategies for learning, monitoring their performance, managing their time, seeking help, and learning resources, maintaining positive beliefs about their capabilities, and reflecting on their learning process for self-evaluation (Schunk & Ertmer, 2000). In order to maximise the learning outcomes,

the (S2R) model examines all the dimensions of L2 learning, including cognitive, metacognitive, affective, motivational, behavioural, and environmental factors that learners can regulate and control. With its connection to educational psychology, self-regulation can offer an extensive view of learners' strategic behaviours, which adds valuable insights to this study because it examines both self-regulation and language learner strategy in a specific task-setting and skill domain (in this case, listening comprehension) and creates a comprehensive image of the L2 listeners' developmental learning processes.

2.5.7 Factors Affecting Strategic Behaviour

The question of why some L2 learners develop and use language learning strategies more effectively than others has been a main concern in L2 strategy research. The empirical evidence regarding this issue indicates that individual differences, such as linguistic proficiency, age, aptitude, intelligence, gender, learning style, motivation, and task, can potentially affect learning outcomes and are directly linked to differences in strategy use (Oxford, 1990). Other external factors can also play a role in learners' strategy use, such as teaching approach, feedback, and environment.

Exploring the effectiveness and moderators of language learning strategy instruction on L2 and self-regulated learning outcomes, Ardasheva et al.'s (2017) meta-analysis based on 53 studies revealed that there is a positive and linear relationship between language learning strategies and L2 proficiency. They also found that students who are highly proficient learners tend to deploy strategies more frequently and that they use the strategies in clusters. This suggests an orchestration of strategies where some learners orchestrate cognitive, metacognitive, and socio-affective strategies simultaneously. Similarly, Plonsky's (2011) meta-analysis of 61 studies, which examined the effectiveness of L2 strategy instruction and the variables that moderate this effectiveness, showed a positive and linear relationship. Both meta-analyses also found that more proficient L2 learners benefit more from strategy instruction, which can be attributed to the 'threshold hypothesis' (Ardasheva et al., 2012; Cummins, 1979). The threshold hypothesis states that learners need to approach a certain level of L2 linguistic knowledge before they can facilitate attainments in the language, including language learning strategies. Comprehension of the learning material and access to the curriculum are gained once sufficient language proficiency and literacy are developed. Learning strategies play a role in helping to raise proficiency and literacy levels, as comprehension is essential to make linguistic progress. One way to achieve this threshold is by embedding learning material in rich and relevant context, and ensuring tasks are cognitively challenging to help students acquire the necessary cognitive complexity. Whichever strategies are used, the aim would be to increase the likelihood of language learners' linguistic

skills development. Reaching the threshold is also necessary if students are being prepared to use the target language as a medium of instruction in higher classes, as in the case with learning English in Saudi Arabia.

In the same vein, Michael Swan (2008) argued that simply teaching learning strategies does not eliminate the necessity of teaching language itself. He also asserts that while effective strategy training can be highly beneficial, it is just one of the many tools that language teachers have at their disposal. It should not be relied upon exclusively and overshadow other important resources and teaching methods.

Some of the factors affecting strategic behaviour include age and educational level, which have a significant influence on the development and use of language learning strategies (Ellis, 1994). Magogwe and Oliver (2007) found that students' educational level determined their choice and use of strategies. While younger learners preferred social strategies, older learners preferred metacognitive and cognitive strategies. This can be attributed to the learners' 'cognitive maturity' and to their development in terms of how they perceived themselves as L2 learners (Ardasheva et al., 2017, p. 552).

Research indicates that men and women typically use language differently, which is evidently true in social interactions (Harmer, 2001). This is also reflected in language learning strategies. Gender differences are one of the most influential variables in LLS. It is reported that females tend to use more strategies than males. Bacon (1992) examined the relationship between gender and strategy use between men and women in foreign language listening. She reported that both males and females addressed the authentic input (radio broadcasts in Spanish) differently. It was observed that females used more metacognitive listening strategies (planning, monitoring, and evaluating) than males. Conversely, males reported using more bottom-up or cognitive strategies, such as mental translation. This finding corroborates Oxford's (1993) view regarding gender differences and language learning strategies, which holds that females deploy different sets of strategies than males. Due to the range of variables that can affect language learning strategies, teachers should be aware of both internal and external influences, to help provide their students with effective training in strategy instruction.

2.5.8 Language Learning Strategies and L2 Listening

Since O'Malley and Chamot's (1990) validation of language learning strategies in the field of language learning, their primary categories of cognitive, metacognitive, and socio-affective strategies have received more attention, especially in L2 listening instruction. Cognitive strategies are the conscious mental procedures learners apply to learning tasks. Examples include guessing

from context and listening for the gist. Applying metacognitive strategies involves thinking about the learning process and controlling cognition by coordinating the processes of planning, monitoring, and evaluating. Applying socio-affective strategies involves regulating social aspects, such as practising L2 with other people, and an example of applying affective strategies is reducing anxiety processes during L2 learning. O'Malley and Chamot (1990) also noted that the type of strategies learners deploy can be determined by different factors, including the course objectives and syllabus, the task itself, and the learner's level of motivation.

A key issue of debate in the learner strategy literature is whether strategy use influences L2 proficiency, or whether proficiency facilitates the use of effective strategies. The first position of the debate argues that low proficiency learners may not benefit from listening strategy instruction due to several reasons (Renandya, 2012; Wang, 2010). The first reason is related to the nature of the relationship between listening strategy and proficiency development. Although empirical evidence has shown a correlational relationship between strategy use and proficiency level, some studies have found that strategies do not have a causal and direct influence on L2 learning success (McIntyre, 1994; Rees-Miller, 1993; Skehan, 1989).

Some teachers and researchers have given instructions that could help students in applying relevant and powerful learning strategies to increase their L2 proficiency. Studies involving EFL/ESL students show that strategy instructions have a positive impact on speaking proficiency (Dadour & Robbins, 1996) and reading. However, the results were not significant for listening (O'Malley et al., 1985). In contrast, some studies have found positive results (Chamot et al. 1996; Weaver et al., 1999), while others have also shown increased motivation (Nunan, 1997) and greater self-efficacy among EFL learners (Chamot et al., 1996). The mixed findings could be explained by differences in types of learning strategies, and the effectiveness of demonstrating and showing learners how to apply those strategies.

Another reason is related to students' readiness to learn and deploy the listening strategies. At early stages of L2 learning, students suffer from poor decoding skills and limited linguistic knowledge, which hamper the application of metacognitive (top-down inferencing) strategies at the expense of perceptual and word/sound recognition skills. That is, they do not have the capacity to apply top-down strategies because they are too focused on bottom-up processing (Field, 2019; Hulstijn, 2003; Wang, 2010; Yeldham & Gruba, 2016). Similar to L2 reading, learners need to reach the threshold level of language proficiency to be able to acquire higher-order processes. The Short-Circuit Hypothesis in L2 reading states that learners must have a sufficient level of linguistic knowledge in order to transfer L1 comprehension skills to L2 and, thereby, benefit from strategy instruction (Clarke, 1980). Therefore, practitioners need to apply the L2

listening strategy instruction with caution by considering the internal and external factors that may influence the listening comprehension process. Examples of these factors would be the level of proficiency, task demands, assessment requirements, and individual differences. Yet, the Short-Circuit Hypothesis in L2 reading is still problematic because it assumes that second language readers only rely on their first language knowledge to comprehend a text in the target language, without fully processing the language input. This hypothesis suggests that second language readers tend to read in a shallow, surface-level way, which limits their ability to comprehend texts in the target language. However, research has shown that second language readers do engage in deeper, more thorough processing of language input, and rely on both their first language and target language knowledge to comprehend a text (Wu et al., 2017). As such, the Short-Circuit Hypothesis would oversimplify the complex cognitive processes involved in second language reading and may lead to ineffective teaching strategies or misguided assumptions about second language learners' abilities.

The other position in the debate asserts the central role of listening strategies in the development of L2 listening proficiency. Researchers who espouse this view are concerned that the transfer of L1 listening skills to L2 is clearly not a given (Newton, 2017; Yeldham & Gruba, 2014), and thus, they call for more research into the effectiveness of integrating strategies in listening-based instruction (Goh, 2000; Newton, 2017; Yeldham & Gruba, 2014). Moreover, research evidence has shown that L2 skilled listeners tend to deploy listening strategies effectively during the listening process (Goh, 2000; Goh & Taib, 2006; Rost & Ross, 1991; Vandergrift, 1997, 1998, 2003). It was also found that L2-skilled listeners tend to actively regulate their listening cognitive processes by orchestrating listening strategies in an interconnected metacognitive fashion, which refers to the way in which different cognitive processes are interrelated and used together in a coordinated and reflective way to solve problems. For instance, it may occur when solving a listening problem, as an individual might use metacognitive strategies to monitor their own thinking and adjust their approach as needed, such as by using inferencing/monitoring to check their answer; applying problem-solving; or breaking the problem down into smaller parts (Graham & Macaro, 2008; Vandergrift, 2003b; Vandergrift & Tafaghodtari, 2010).

Rost and Ross (1991), in their investigation of L2 learners' use of strategies during social interaction, found that the choice of perception strategies is affected by the language proficiency level and cognitive constraints of L2 learners. This explains why a less proficient L2 listener leans too heavily on ineffective compensatory strategies, such as translation and prior or schematic knowledge, to interpret large chunks of unfamiliar input (O'Malley et al., 1989; Vandergrift, 1998), which leads to misinterpretations, poor guessing, and heavy cognitive load (Long, 1990; Vandergrift, 2003a). Empirical studies have amply demonstrated that adopting metacognitive

learning strategies is one of the prominent characteristics of good language learners (Graham, 1997; Macaro, 2001).

Although some scholars have emphasised the significant relationship between strategy use and motivation (Oxford & Nyikos, 1989), it should be noted that knowing about different learning strategies may not be sufficient to motivate learners, but the actual use and implementation of learning strategies are strongly associated with student motivation (Pintrich & Schrauben, 1992).

Moreover, several studies on listening strategy instruction have clarified that L2 learners can be instructed and taught how to use strategy effectively to improve their performance in L2 listening tasks (Vandergrift, 1999). Zeng and Goh (2018) investigated the role of self-regulatory strategies and metacognitive awareness in developing L2 listening skills. In their qualitative study, they examined the influence of achievement and metacognitive awareness on four high- and low-achieving EFL Chinese listeners. The findings revealed fundamental differences in the metacognitive engagement of the two groups during all the self-regulated learning phases. The high-achieving listeners' group showed a salient difference in making long-term metacognitive adaptation for L2 listening development compared to their counterparts. The long-term metacognitive adaptation for L2 listening development refers to the ability of individuals to develop and apply metacognitive strategies over an extended period of time in order to improve their listening skills in L2. This might involve identifying and addressing specific challenges, developing effective study habits, and refining metacognitive strategies over time to achieve greater proficiency in L2 listening comprehension. Self-regulation while reflecting may also lead to improved L2 listening proficiency and metacognitive adaptation (Zeng & Goh, 2018), especially when learners reflect on their strategy use (Vandergrift & Baker, 2018; Yabukoshi, 2021), as it could help to refine or tailor their strategies. Another study involving Chinese EFL university students confirmed the effectiveness of strategy-embedded task-based instruction in raising their metacognitive awareness and improving their L2 listening skills (Chou, 2017). However, more task-based L2 listening research was recommended by the researcher to ascertain the effectiveness of this approach in L2 listening classes and what would be ideal to focus on while reflecting to improve listening comprehension. It may, for instance, be on meanings or achieving communication goals (Ellis, 2003).

With respect to L2 listening strategies, Handayani (2016) examined the effects of language learning strategies on Indonesian engineering students' listening comprehension to identify the most effective learning strategies for improving listening comprehension. The study found a positive correlation between language learning strategies and engineering students' listening comprehension scores. Interestingly, the use of cognitive strategies showed a negative

relationship with listening comprehension, and the researchers assumed that this was because those students tended to focus on the perception of sounds and patterns rather than on the comprehension of meaning. Therefore, a combination of metacognitive and affective strategies was highly recommended as the most effective strategy to improve engineering students' listening comprehension.

In a local context, Al-Malki (2018) carried out a study aimed at identifying the perceptions of Saudi undergraduates regarding their implementation of metacognitive, cognitive, and socio-affective L2 listening comprehension strategies. The results indicate that Saudi EFL students tend to predominately apply cognitive strategies to comprehend listening passages, whereas metacognitive and socio-affective strategies were reported to be applied the least. Moreover, Saudi EFL students demonstrated more frequent use of bottom-up than top-down listening strategies, suggesting a prioritisation of target language proficiency when selecting appropriate listening strategies. Cognitive strategies were utilised more often to make sense of linguistic input because they help learners understand the material and store short-term memory for later access. Examples of cognitive strategies would be guessing a meaning from a context, summarising, repeating, and memorising. They all facilitate listening comprehension, which may be considered as more essential compared to the additional benefits provided by the other types of strategies. Metacognitive and socio-affective strategies were used less frequently because the benefits they provide may be considered as being of secondary importance to acquiring listening comprehension, which is also more easily assessable.

Nonetheless, metacognitive, and socio-affective strategies are important in their own right. The researcher of the above-mentioned study, too, acknowledged the value of emphasising them, so as to avoid affective problems in students, such as low self-esteem and motivation, anxiety, and nervousness that could hinder their linguistic performance (Gebre & Tadesse, 2015). Lack of motivation or confidence, for example, may hinder listening capability or the willingness to listen, as well as communicating actively altogether, which may be considered as necessary prerequisites before aiming to comprehend linguistic input. Likewise, top-down strategies are valuable for the context they provide, which potentially enhances understanding. For example, knowing the background could make a text more relevant to learners and enable them to relate it to their own personal experiences. Building upon such knowledge and experience, which would be a metacognitive strategy, could aid deeper understanding, and this was among the most frequently used metacognitive strategies found in Al-Malki's (2018) study. Given that Arab culture is predisposed towards relying heavily on authority figures, language learners could also benefit from teachers specifically teaching them certain skills that could aid in improving listening comprehension. The same study found this to be a popular socio-affective strategy.

2.5.9 Summary

Learners' particular level of proficiency is an important factor to consider during strategy instruction. During the early stages of L2 listening development, learners' motivation might be vulnerable due to the 'frustration' they experience, especially with long spoken texts. Low motivation may also affect their self-efficacy negatively, leading to them losing interest in developing L2 listening skills. Therefore, providing students with effective listening strategies can help them compensate for gaps in their comprehension as well as transfer their strategy knowledge to other learning contexts (Field, 2019; Graham & Macaro, 2008).

Due to previous reasons, which have problematised the L2 listening pedagogy, finding useful ways to teach L2 listening has been the biggest concern of L2 listening teachers and practitioners. In the L2 listening literature, many studies involved conducting interventions aimed at giving students effective listening tools to help them become more autonomous and proficient L2 listeners (Graham & Macaro,2008). However, merely possessing these tools is not enough to become proficient L2 listeners in the long term.

Furthermore, understanding the interlinked and reciprocal relationships between self-efficacy, self-regulation, and motivation is necessary to explain the behavioural changes encountered in L2 listening development. When L2 listeners are motivated, they tend to experience more L2 listening success, which is likely, in turn, to enhance their self-efficacy beliefs and raise learners' confidence to self-regulate their L2 listening development. This self-regulated learning process – that is, having control over strategy use and being able to do self-monitoring and self-evaluation in listening – could foster more motivation to even higher levels in a continuous, self-reinforcing learning cycle.

In a nutshell, a) listening is fundamental to language learning but listening pedagogy is problematic, b) listening strategy instruction can improve outcomes but its interaction with learner proficiency is yet unclear, and d) listening comprehension is affected by a range of factors such as self-efficacy, which feeds self-regulation and vice versa, and both are linked to motivation.

2.6 Listener Metacognition

2.6.1 The Metacognitive Framework for L2 Listening

Metacognition refers to the process of thinking about one's own thinking. It involves awareness and understanding of one's own cognitive processes, such as perception, memory, attention, and problem-solving. Metacognition also involves the ability to monitor and control one's own

thinking, such as being aware of when one is making errors or having trouble in understanding a concept.

Many empirical studies underpinned by metacognitive frameworks have shown that learners' metacognitive knowledge can be enhanced through classroom instruction and pedagogic interventions (Liu & Goh, 2006; Mareschal, 2007; Vandergrift, 2002, 2003), especially for less proficient listeners who received more gains relating to successful listening outcomes (Vandergrift & Goh, 2012). In this regard, it has been found that metacognitive awareness has a positive influence on listening outcomes because it impacts learners' abilities to listen and develops their listening process. When listeners have more knowledge about the task demands, they are more likely, for instance, to plan the strategies ahead, monitor and evaluate the listening process, compared with those who would approach the listening task randomly and cluelessly.

Goh (2008) proposed a form of 'metacognitive instruction' for L2 listening development. The metacognitive instruction form is based on a process-based approach to teaching listening (Goh, 1997, 2002) and metacognition, which stands for thinking about our own way of processing and regulating information for different purposes (Vandergrift & Goh, 2012). The term 'metacognition' in this sense comprises Flavell's (1976) definition of metacognition as the metacognitive knowledge to process, monitor, and regulate cognitive data to achieve specific goals, and Brown's (1978) conception of metacognition, which encompasses metacognitive strategies and strategy use.

Vandergrift and Goh (2012) argued that metacognition is the essence of learner-oriented listening instruction, and thus, metacognition relies heavily on individual development through self-regulated learning and the effective use of strategies to help improve listening skills and develop learner autonomy. They further explained that the outcomes of metacognitive instruction can enhance students' strategic behaviour and help them gain a sense of agency by controlling their learning process through effective use of monitoring and problem-solving. Such personal agency would, in turn, enhance students' self-concepts and self-perceptions, which are essential traits to foster motivation and self-efficacy (Hacker et al., 2009). Another argument is related to the link between metacognition and strategy use. They depict metacognition as the wider umbrella that manages the learning process, referring to strategies as being metacognitive in nature since they allow learners to deliberately learn and develop their learning of the language.

This metacognitive form specifically addresses two language learning functions: (1) self-appraisal, involving the knowledge and reflections of one's own cognitive processes, and (2) self-management, or how to regulate and control cognition and thinking (Paris & Winograd, 1990). To help in meeting these two functions, the metacognitive framework is composed of three main

components: metacognitive knowledge, metacognitive experience, and strategy use (See Figure 2.3).

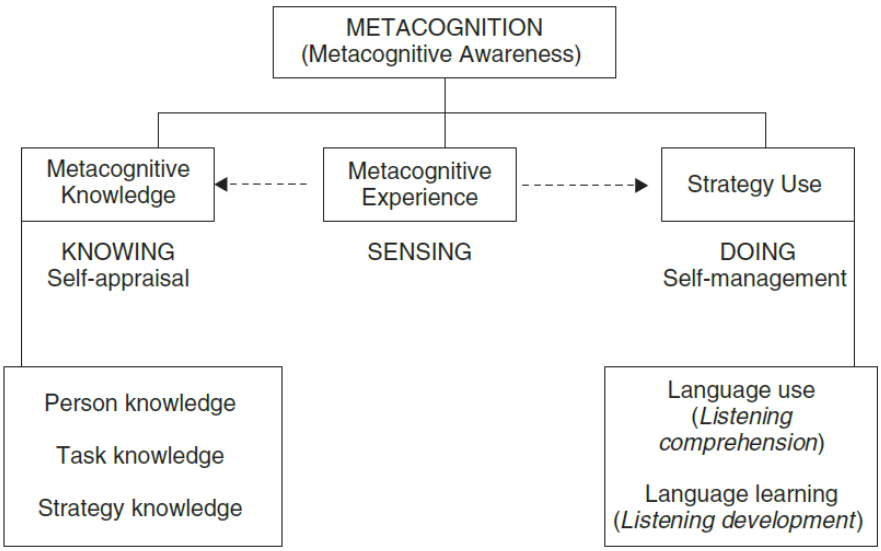

Figure 2.3 A Metacognitive Framework for Listening Instruction (Based on Vandergrift & Goh, 2012)

Metacognitive knowledge involves three types of knowledge about cognition classified by Flavell (1979): person, task, and strategy. Person knowledge refers to the knowledge of cognitive factors, such as specific listening problems and solutions, and affective factors, such as self-concepts and self-efficacy, that promote listening comprehension and development. Task knowledge refers to the knowledge of task-related demands and purposes, and the ability to act accordingly. For example, it may involve identifying what listening skills are required to complete the task and what cognitive, affective, and social processes are required for listening. Thirdly, strategy knowledge is concerned with knowledge of effective strategies and how to orchestrate these strategies to successfully accomplish listening tasks.

The metacognitive experience is the second component of the metacognitive framework for listening-based instruction and refers to the experience one holds about himself or herself when performing a task. For example, during a listening activity, one may benefit from metacognitive experience when faced with an unknown word, figuring out a strategy to infer the meaning from the context of that particular word in the past, and trying to apply the same strategy to solve a similar new problem. It is also believed that metacognitive experience may have an impact on the other two components, as indicated in Figure 2.3.

The third component is the use of a strategy, which is to implement strategies to achieve certain goals and make the learning process easier and more interesting. The amount of strategy knowledge determines the learner's awareness level to deploy those strategies effectively.

Therefore, strategy use is directed by one's metacognition about listening. Also, although strategies and skills are both automatic and goal-directed processes, listening strategies begin with more conscious and controlled processing behaviours, leading to automaticity and ending with becoming more skilful L2 listeners. Graham and Macaro (2008) also confirmed that to ensure more L2 listening success, one should control and manage the metacognitive strategies during the course of strategy use according to the listening task and learner variables.

2.6.2 Listener Metacognition in Relation to Linguistic Knowledge

In their systematic approach to reviewing the research literature on L2 listening strategies, Macaro et al. (2007) argued that one of the main factors hindering the evaluation of the causal relationship between strategy use and L2 listening proficiency is the failure to control linguistic knowledge (vocabulary and grammatical knowledge). They stressed the need to control the linguistic knowledge to ensure that the L2 listening strategies are not affected by the learners' level of proficiency. They asked three questions related to L2 listening strategy research. The second question is relevant to the aim of this study, which is specified as: 'Is there evidence of different strategies being deployed among participants who have equal linguistic knowledge?' (Macaro et al., 2007, p. 169). In this respect, listening outcomes will be the dependent variable and listening strategy use will be the independent variable. This issue was also discovered when examining the relationship between metacognition and listening outcomes in some L2 listening comprehension studies. Those studies found that a direct influence of linguistic knowledge (vocabulary size) on listening proficiency, when compared with the influence of metacognitive awareness, tends to be weaker (Vandergrift & Baker, 2015; Wallace, 2020; Wang & Treffers-Daller, 2017). This means that metacognition influences listening proficiency as much, if not more, than linguistic knowledge. In fact, metacognitive skills can compensate for gaps in linguistic knowledge. Skilled listeners can use their metacognitive strategies to fill in gaps in their linguistic knowledge by making predictions, using context clues, and monitoring their understanding. On the other hand, listeners with weak metacognitive skills may struggle even if they have strong linguistic knowledge, as they may not effectively use strategies to compensate for any gaps in their language proficiency. However, it is important to note that both factors are interconnected and can mutually influence each other. Overall, a combination of strong linguistic knowledge and effective metacognitive skills is ideal for developing high levels of listening proficiency.

According to Macaro et al. (2007), it is crucial to measure one aspect of linguistic knowledge to ensure that listening strategies are not influenced by the learner's competence and to clearly demonstrate the causal relationship between listening strategies, or metacognitive awareness, and listening proficiency. Empirical research has also consistently shown that vocabulary

knowledge has the strongest influence on L2 listening proficiency, even more than grammatical knowledge (Hulstijn, 2015, 2019; Mecartty, 2000; Smith, 2020; Zhang & Graham, 2020). By measuring the size of learners' vocabulary, it may be possible to evaluate the influence of metacognitive self-regulation and strategy use on L2 listening proficiency. Although it is difficult for this current study to control for vocabulary knowledge, which is learners' vocabulary size, however, learners' linguistic knowledge will be considered as a moderating variable to examine the effects of language proficiency levels on L2 listening through using a measure of general (English language) proficiency (see Section 3.7.3.4).

Most of the studies on L2 listening comprehension have either explored the impact on L2 listening proficiency from a linguistic knowledge angle or from a listening strategy use angle. Graham et al. (2010) is one of the few studies that have sought to explore the interplay between the two. By addressing the influence of both linguistic knowledge and strategy use, Graham et al. (2007) conducted an exploratory investigation aimed at probing into the listening strategies and sources of knowledge of 14 French learners at the low-intermediate level. The results showed that learners with low linguistic knowledge deployed listening strategies less effectively than learners with high linguistic knowledge. More interestingly, it was found that linguistic knowledge did not necessarily impede or weaken strategy use in all four cases of a) high linguistic knowledge and high listening proficiency (n = 7); b) low linguistic knowledge and high listening proficiency (n = 2); c) high linguistic knowledge and low listening proficiency (n = 1); and d) low linguistic knowledge and low listening proficiency (n = 4). This suggests that strategy use could help learners with low linguistic knowledge overcome their listening difficulties, and that the lack of effective strategy use may lead to comprehension gaps, even if sufficient vocabulary size is maintained (Smith, 2020).

2.6.3 Listener Metacognition in Relation to Individual Differences

To ensure effective use of listening strategies and metacognitive knowledge, it is essential to consider the role of other individual differences, such as learning style, prior knowledge (schema), motivation, self-efficacy, and anxiety (Graham et al., 2008; Macaro et al., 2007; Mareschal, 2007; Yeldham & Gruba, 2016). Vandergrift and Goh (2012) conceptualised the relationship between individual differences and metacognition using the systems model of L2 listening (See Figure 2.4). This integrated model comprises three main components: person factors, learning contexts, and listening results, which are all connected across a middle junction of cognitive (top-down, bottom-up, and interactive listening processes), social (active and bidirectional listening), and strategic (strategy use and metacognitive self-regulation) processing (Smith, 2020). The systems model of L2 listening demonstrates the personal and contextual factors that could likely influence L2 listening proficiency. The strategic processing during the listening task could be influenced by

several personal and contextual factors. In this study, the emphasis is on the interactions between metacognitive knowledge (including person, task, and strategy knowledge), self-efficacy, and motivation through evaluating aspects of metacognition: metacognitive awareness and metacognitive self-regulation (or strategy use).

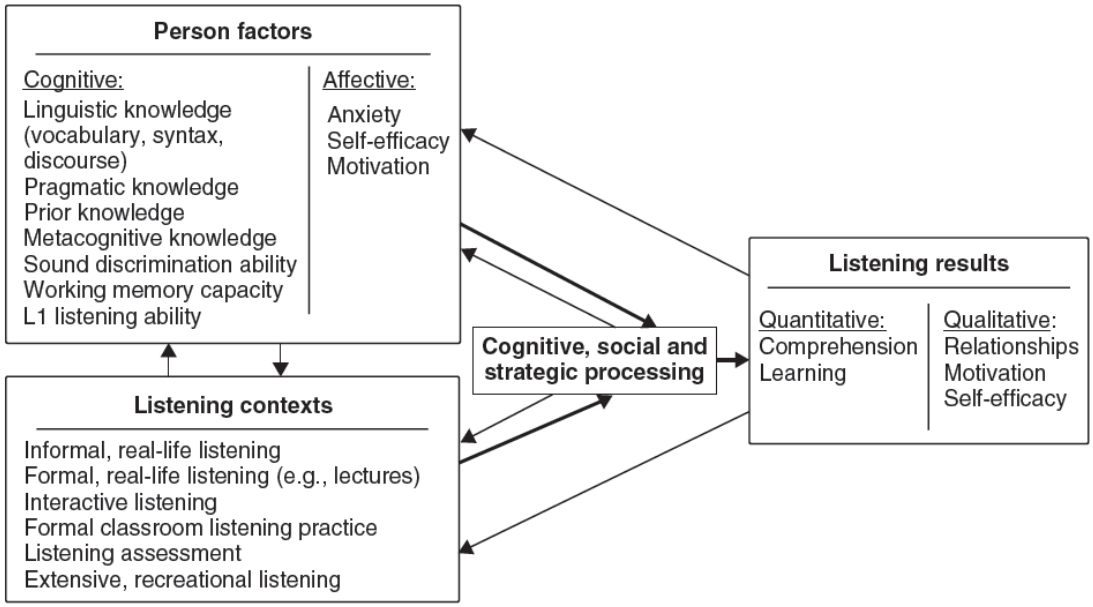

Figure 2.4 The Systems Model of L2 Listening (Vandergrift & Goh, 2012, p. 58)

2.6.4 Summary

Recent reviews of L2 listening instruction research have begun to yield a metacognitive understanding of L2 listening development (Chamot, 1995; Mendelsohn, 1995; Vandergrift, 2004). Goh (1997, 2005, 2008) argued that developing learners' metacognitive knowledge and strategy use is more critical than testing their listening comprehension when teaching them how to listen. Cognition is a fundamental part of human learning, as it guides learners to develop self-awareness skills. Metacognitive instruction in listening is the teaching method aimed at increasing learners' awareness about the listening process through the development of skills that enable them to evaluate (self-appraisal) and manage (self-regulate) their listening comprehension development (Goh, 2010). Research on metacognition revealed that older individuals, including college students, show some deficiencies in certain areas of metacognitive knowledge, leading to theorists calling for more metacognitive interventions to enhance learners' self-regulation abilities, comprehension, and learning through teaching metacognitive strategies in literacy classes (Armbruster et al., 1983; Reeve & Brown, 1985).

Metacognitive listening strategies are learning strategies designed to activate learners' thinking processes through problem-solving, planning and evaluation, mental translation, person

knowledge, and directed attention (Vandergrift et al., 2006). To raise learners' metacognitive awareness about L2 listening, it is necessary to foster their awareness of these five listening strategies through a teaching practise that shows learners how to utilise them to regulate their L2 listening comprehension process (Imhof, 2001; Trace, 2013). Moreover, empirical evidence and interventional studies show that effective use of metacognitive listening strategies is an indispensable part of successful listening comprehension (Vandergrift, 2003b). This is because it helps to improve learners' self-regulation and autonomy in L2 listening (Vandergrift, 2002), has a significant correlation with learners' motivation and interest to learn (Goh, 2010; Vandergrift, 2002), enhances L2 listening self-efficacy (Vandergrift, 2005), and increases learners' knowledge about listening and strategy use (Goh, 2010). Ultimately, the extent to which metacognition influences listening proficiency may vary depending on individual learners and their specific learning contexts. Thus, it is important to take into account individual differences and the unique characteristics of each learner when considering the impact of metacognition on listening proficiency.

2.7 Dynamic Relationships of Self-Efficacy, Motivation and Metacognitive Self-Regulation

Based on the previous empirical findings from the literature, it can be said that the relationships between motivation, cognition, and affective variables that explain the L2 listening skill are complex and multidimensional. From a social-cognitive perspective, these variables reciprocally interact with each other, leading to behavioural change. Scholars holding this view assume that since cognitive functioning is a response to contextual forces, it is vital to explore cognition in relation to other variables like motivation and emotion (Piniel & Csizér, 2013).

Schunk (1991) explained the connection between self-efficacy and motivation by depicting self-efficacy as a source to generate, enhance, and maintain motivation. Students' awareness of their progress in L2 learning increases their self-efficacy beliefs, which, in turn enhances their motivation to learn. Likewise, Zimmerman (2000) postulated that self-efficacy has an impact on motivation, and this impact is clearly evident in learners' persistence and intentionally planned efforts. Considering the type of motivation adopted in this study, Hsu (2006) investigated the link between motivation and English listening comprehension among Taiwanese college students. Motivation was operationalised as the attitudes that affect students' determination to practice listening in English. The results found that highly motivated students were more active in practising L2 listening. It was also found that the students performed better at English listening comprehension tests. For the purpose of this study, motivation will be examined in relation to L2

listening practice.

Likewise, learning motivation and self-regulated learning share an interdependence relationship. It is thought that this is because various self-motivational beliefs determine self-regulated strategy use (Wang & Zhan, 2020). This role of motivation as a key component of self-regulated learning has a significant influence on L2 development and could be either direct or mediated by language learning strategies, individual differences, or both (Ardasheva et al., 2017). Moreover, considering Zimmerman and Schunk's (2008, p. 1) definition of self-regulation as 'the control of one's present conduct based on motives related to a subsequent goal or ideal that an individual has set for him or herself', it can be inferred that motivational factors comprise future goals and 'intended learning effort' (Kormos & Csizer, 2014, p. 4) that can determine and guide self-regulation and self-regulatory strategies.

Importantly, Zimmerman (2002) noted that effective self-regulation depends on a high sense of self-efficacy, which in turn would enhance strategy use to achieve the desired learning outcome. Therefore, assessing EFL learners' performance inside the classroom could serve as a reliable predictor for learning outcomes. Studies have highlighted this relationship between self-efficacy beliefs and self-regulated learning components regarding strategy use (Pape & Wang, 2003). Reviewing the empirical literature on self-efficacy, Raoofi et al. (2012) found that strategies and strategic training can enhance the self-efficacy of EFL learners in different contexts, and that there is a significant link between strategy use and self-efficacy beliefs.

In their study of the relationship between language learning strategies and self-efficacy beliefs, Magogwe and Oliver (2007) revealed that more proficient learners tend to exhibit more strategy use in Botswana and that the successful use of language learning strategies is mediated by several factors. Among those factors are self-efficacy beliefs. More firm evidence was gleaned by Graham et al. (2020), who investigated the relationship between self-regulatory reading strategies and reading self-efficacy among 529 beginner learners of French. They found a statistically significant relationship ($r = .493$) between Text Engagement Regulatory Reading Strategies and L2 reading efficacy. Overall, their findings highlighted the cyclical relationships between self-efficacy, self-regulatory strategies, and L2 reading outcomes.

Focusing on self-regulated learning, Zimmerman (1990) stressed that teaching students learning strategies would lead to improved self-regulation and that the strategy instruction should, therefore, focus on: (a) behavioural (strategic behaviour or how to use the strategies); (b) metacognitive, for self-feedback on the use and effectiveness of learning strategies; and (c) motivational, including the interrelationship between learning and motivational processes, such as self-efficacy. Therefore, strategy instruction would positively affect three components of self-

regulated learning: strategic behaviours, metacognition, and motivation, which would eventually lead to enhanced self-efficacy and achievement gains.

2.7.1 The Gap in L2 Listening Comprehension Research

In L2 listening studies, investigations of the interrelationships between listening self-efficacy, listening motivation, and self-regulatory strategies in L2 listening comprehension are still scarce. Stemming from educational psychology and strategy instruction research, the proposed pedagogical intervention of this study is designed based on a theoretical framework, targeting task-specific strategy clusters (orchestration of more than one listening strategy), awareness raising, behaviour modelling, and positive feedback. Integrating a self-regulated learning model that emphasises the role of metacognition and L2 listening strategies could help learners exercise control over their learning process, which in turn may enhance their self-efficacy beliefs and motivation to learn (Deci & Ryan, 1985; Ushioda, 2006).

2.8 L2 Listening – The Pedagogic Tools

2.8.1 Listening Strategy-Based Instruction for EFL Learners

Listeners in natural settings construct a 'reasonable interpretation' of their listening input through an inferential process of comprehending verbal and non-verbal cues and signals (Lynch, 2006, p. 91). Such a process occurs automatically when listening in L1 but trying to make sense of the spoken language in L2, especially with a limited command of it, might be a hindrance for less competent L2 listeners to adequately understand the spoken input. Moreover, this can potentially lead to serious comprehension issues and, ultimately, communication breakdowns. In instructed L2 learning contexts, listening comprehension has long been neglected and assumed to be acquired automatically and naturally through exposure to L2 aural input. Yet, L2 listening instruction, especially when teaching beginners, has suffered from limited authentic and natural input, not to mention the short periods of time required to ensure the development of each language skill, let alone a complex and dynamic skill such as listening.

These listening difficulties make L2 listening instruction even more challenging for EFL teachers. Among the challenges that EFL teachers encounter with their students in classrooms are speech rate, connected speech, native accent, lack of background knowledge, lengthy aural texts, passive and demotivated listeners, and so on (Nushi & Orouji, 2020; Rost & Wilson, 2013). Also, some teachers are bound by the design of the curriculum, as well as the programme of study, and are usually faced with pedagogical 'issues pertaining to curricular objectives and evaluation measures'

(Kumaravadivelu, 2001, p. 538), which may be a constraint to meeting programme objectives and developing suitable instructional activities, such as contextual listening tasks. Such difficulties tend to cause anxiety in learners, too, by putting them under more pressure to improve their performance in L2 listening tests (Arnold, 2000). The recent research on listening instruction has affirmed the importance of understanding the listening process to 'inform pedagogy' (Vandergrift, 2007, p. 191). Moreover, Vandergrift (2004, p. 3) indicated that the current shift in listening instruction is to focus more on the process of listening itself rather than the 'product of listening', in other words, learning to listen rather than listening to learn.

Many theories have examined the underlying processes of listening comprehension. In addition, different frameworks for L2 listening have enriched the literature with unique perspectives on both listening processes and listening instruction (Rost & Wilson, 2013). An interactive model of top-down (building meaning through semantic content and background knowledge) and bottom-up (the decoding process of sound segments and words through linguistic knowledge) of listening comprehension has been adopted in the pedagogic intervention of this study (Buck, 2001; Graham & Macaro, 2008). In this present study, there are two reasons behind choosing an interactive listening approach. The first reason is related to the argument that the overall dependence on a bottom-up process is 'artefactual and never characterised real-life listening' (Field, 2004, p. 8). Likewise, top-down dependency is less favourable, although it can be adopted as a compensation measure to compensate for insufficient bottom-up data. However, total reliance on a top-down approach can cause 'dysfunctional' consequences for L2 listening comprehension (Long, 1990, p. 2), and can further result in a breakdown of comprehension of the actual text if the inferences and schemas are processed inadequately (Lund, 1991) despite the recent literature on listening instruction, which has revealed the tendency to favour top-down over bottom-up processes (Field, 2004, Rost, 2002). The second reason is related to the teaching material and the focus of the textbook used in this course of the intervention, namely, 'Milestones in English – A2/B1', which integrates both bottom-up and top-down processing.

Listening is not a linear process and does not follow a 'fixed sequence' (Buck, 2001, p. 2). Rather, it is an integration of multiple types of processing that work together simultaneously towards listening development (Buck, 2001; Rost & Wilson, 2013). Regardless of that, the purpose of the listening activity determines to what extent a learner would use one process more than another (Vandergrift, 2004). The purpose of listening can also determine the levels of motivation and the types of listening strategies to be implemented (Brown & Yule, 1983). For these reasons, L2 listeners are encouraged to benefit from these intertwined listening processes in their favour in order to achieve optimal listening outcomes (Vandergrift, 2004). To achieve that, a well-designed intervention aimed at implementing task analysis and listening strategy-based instruction is

recommended to elevate learners' listening proficiency skills.

As mentioned before, research suggests that high skilled listeners use a wider range of effective listening strategies compared to less skilled listeners (Murphy, 1985; O'Malley & Chamot, 1990). Also, studies on second language (L2) listening comprehension indicate that more proficient listeners not only use more metacognitive listening strategies, but they are also able to use them more effectively and combine both top-down and bottom-up processing (Harris, 2007, p. 190; Vandergrift, 1998). However, it should be noted that low intermediate-level learners would still need more time to acquire new listening strategies. This calls for the need to break down general strategies into 'sub-strategies', to make them more attainable to low intermediate-level learners (Hsiao & Oxford, 2002). Besides, there appears to be a general consensus on the process of conducting strategy instruction, beginning with raising metacognitive awareness, modelling, making predictions, monitoring, and finally evaluating strategy use (Chamot, 2004). Such a process aligns with Zimmerman and Moylan's (2009) three cyclical stages of self-regulated learning, as adopted in this study.

In order to investigate how the use of listening strategies has changed over a period of time, it is more recommended to triangulate data in order to obtain a deeper understanding and elicit more information from participants. Ozeki (2000) examined the influence of strategy instruction on EFL first-year college students in Japan. The results revealed that the treatment group outperformed the control group in terms of strategy use and, consequently, exhibited better listening outcomes. However, Graham et al., (2008) referred to a shortcoming in the data collection procedures of Ozeki's (2000) study as the verbal report (interview) on strategy use was only collected in the pre-test (phase 1), while the questionnaires were administered during the pre- and post-test phases. Similarly, McGruddy (1998) investigated the effects of listening comprehension strategy training in advanced-level ESL students by using only one instrument (questionnaires in the pre- and post-test phases) to explore strategy use changes over a period of time. However, applying only one instrument to collect data and elicit information on strategy use was not as valid as the method of applying verbal reports (Graham et al., 2008). Moreover, combining questionnaires with the results of listening comprehension tests alone may not be plausible to measure changes in strategy use due to the complex and highly individualised nature of listening strategies (Vandergrift, 1998).

For the aforementioned reasons in the methodological and instructional procedures, the design of the pedagogic intervention in this study permitted the administration of both a questionnaire and a stimulated recall protocol at all phases of the study (pre- and post-test) to systematically trace the development of the listening strategy among EFL learners. The stimulated recall interview

would give deeper insights into the strategy development, given the highly individualised nature of strategies, which makes it difficult to tackle all the aspects of the strategic behaviour by merely adopting questionnaires for data collection. The volume of usage, such as how many times learners report using strategies, and/or the quality of use (whether the strategy is effective at that particular time) are also going to be measured throughout different stages of the teaching intervention.

In terms of pedagogy, the designed intervention is based upon (a) the integration of interactive model of listening process, (b) the orchestration of more than one strategy, (c) simplifying the strategies by breaking them down into sub-strategies (e.g., problem-solving can be divided into problem identification and inferencing or guessing), and (c) the implementation of self-regulated learning process and the pedagogical cycle of listening strategies.

2.8.2 Listening Strategy-Based Instruction in a Hybrid Context

The synchronous hybrid learning method (SHLM) is a teaching and learning approach that combines face-to-face and virtual teaching simultaneously using real-time audio and video technology to facilitate interaction between two groups. This approach is gaining popularity in the field of education due to its potential to enhance student learning experiences and increase student engagement. Studies have shown that SHLM can improve students' academic achievement, cognitive development, and critical thinking skills (Garrison & Kanuka, 2004; Kebritchi et al., 2017). Hybrid learning has become a popular response to the Covid-19 pandemic in Saudi Arabia, as it enables students to continue their education while maintaining social distancing protocols (Alhusban, 2022). The Saudi Arabian government implemented a hybrid learning approach in 2020 to ensure that students could continue their education during the pandemic. Since the intervention procedure in this study was affected by Covid-19 preventive measures, the designed activities were adjusted to adapt to the unprecedented shift to emergency remote teaching. This transition from face-to-face to hybrid learning has not been accomplished without challenges. Educational institutions and educators in Saudi Arabia have had to adapt quickly to new technologies and develop new pedagogical approaches to ensure that students receive high-quality instruction. Regardless of the challenges, hybrid learning has provided an opportunity for educators to deliver education that is more flexible, personalized, and interactive.

In a synchronous hybrid learning context, strategy-based instruction can help students manage their learning more effectively by providing them with the tools and techniques they need to monitor their progress, set goals, and evaluate their learning outcomes. Incidentally, this is not unique to hybrid learning or SHLM. Studies have shown that strategy-based instruction and the

use of motivational strategies in a synchronous hybrid learning context can enhance students' academic achievement, self-regulated learning, and motivation (Jeon & Lee, 2023; Wang et al., 2022). More specifically, L2 listening strategy-based instruction can help students improve their listening comprehension and communication skills by providing them with the tools and techniques they need to decode spoken language, identify important information, and respond appropriately. Studies have also shown that listening strategy-based instruction in a synchronous hybrid learning context can improve students' listening comprehension, vocabulary acquisition, and communicative competence (Abd Al Nabi & Keshta, 2015; Lee, 2016). For that matter, this study explores the synchronous hybrid learning as a mode of instruction to teach listening strategies in Saudi EFL context, which adds another pedagogical dimension to this study by examining the distinction between traditional in-person education and hybrid learning.

2.8.3 Theoretical Framework of the Pedagogic Intervention

The theoretical framework underpinning this study is framed by Zimmerman and Moylan's (2009) three-phase cyclical model of self-regulated learning and Vandergrift's (2004) listening instruction stages and metacognitive strategies (See Figure 2.5). Zimmerman (2000) postulated a cyclical model of self-regulated learning based on Bandura's (1986) social cognitive theory. The three self-regulatory phases (forethought, performance, and self-reflection) explain, at the individual level, the interrelationship of metacognitive and motivational processes, especially between self-efficacy and strategy use in the first phase (Graham et al., 2020), and strategies and metacognitive monitoring in the second phase. Likewise, Vandergrift's (2004) proposed the listening instruction stages and related metacognitive strategies to help students learn how to listen and to guide them through stages that develop their metacognitive knowledge (including person, task, and strategy knowledge) (Goh, 2008; Vandergrift, 2004).

Similar to Zimmerman and Moylan's (2009) model of self-regulated learning, Vandergrift's (2004) pedagogical cycle of metacognitive strategies consists of three main stages, pre-listening stage (planning and predicting), listening stage (includes three verification substages), and the post-listening stage (reflection and evaluation). The listening instruction stages will be discussed in detail in section (3.5.1). Furthermore, Vandergrift's (2004) pedagogical cycle of listening strategies highlights the vital role of raising students' awareness about metacognitive strategy use and the teacher's role in scaffolding the listening process, especially at the early stages of the listening instruction. Through deploying metacognitive strategies during listening, students can self-regulate their listening process, build confidence, and learn how to orchestrate the use of more than one strategy. From a motivational perspective, raising students' awareness about the listening process (through teachers' modelling of the strategies), and receiving feedback from the

teacher and peers, are two important sources of self-efficacy beliefs, namely, vicarious experience and verbal persuasion (Bandura, 1986).

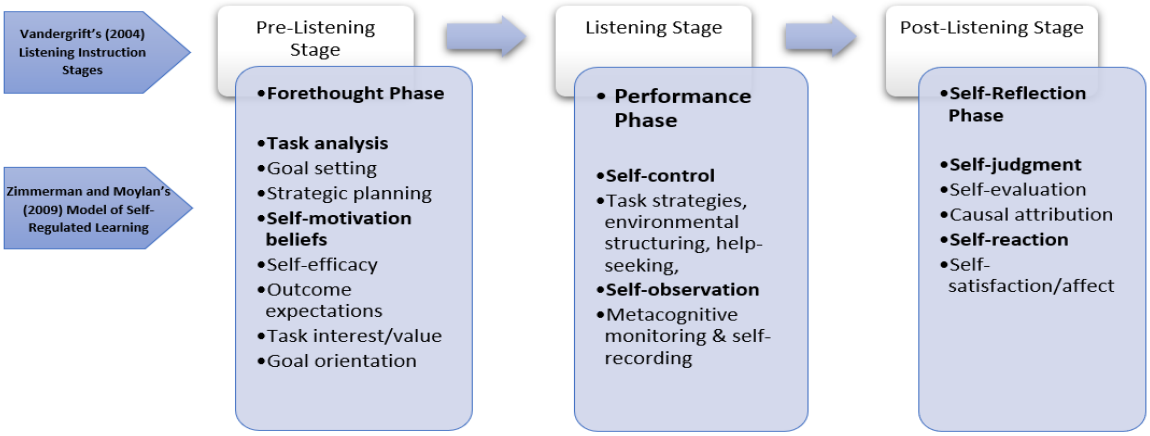

Figure 2.5 Theoretical Framework of the Pedagogic Intervention (Author)

2.9 Research Questions

This study is designed to examine the relationship between EFL learners' listening self-efficacy beliefs, listening motivation, metacognitive self-regulation, and listening performance before, during, and after a teaching intervention involving listening strategy instruction. The research questions guiding this study are four key questions, with one sub-question:

1. To what extent do listening strategy-based instruction and feedback on listening strategy use affect self-efficacy for L2 listening, use of self-regulation strategies, L2 listening motivation, and L2 listening outcomes over the treatment period?

2. What are the relationships between self-efficacy for L2 listening, self-regulation, and L2 listening motivation at all test times?

3. Which, if any, of the variables (self-regulation, L2 motivation, metacognitive awareness) predicts L2 self-efficacy for L2 listening?

4. What self-regulatory behaviours did the learners employ during the L2 listening strategy-based instruction?

   4a. How did the students perceive the listening strategies instructed in hybrid learning: their strategy use, and their preferences in terms of L2 listening instruction?

2.10 Research Hypotheses

In order to answer the research questions and investigate the relationships among listening self-

efficacy, listening motivation, and self-regulatory strategies, a number of research hypotheses have been postulated based on previous research in the field in terms of empirical and theoretical findings. Figure 2.6 presents a conceptual framework for this study illustrating the expected relationships between all the variables.

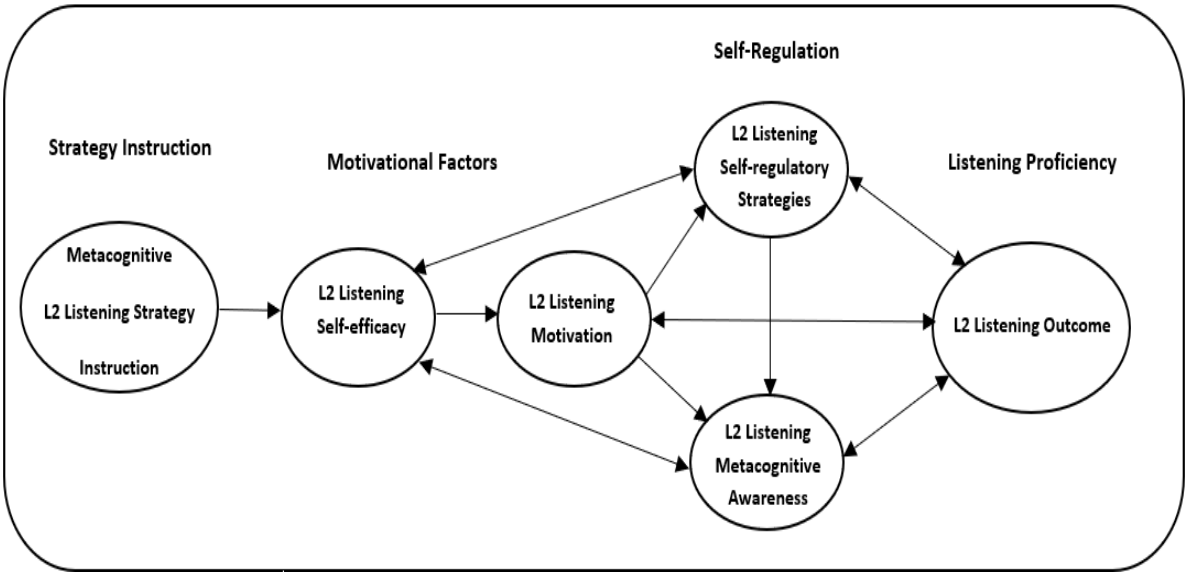

Figure 2.6 Relationships between research constructs and hypotheses (Author)

Based on previous SI and listening self-efficacy research, it is assumed that metacognitive L2 listening strategy instruction could influence L2 listening self-efficacy (Vandergrift, 2005), which in turn influences L2 listening motivation (Goh, 2010; Vandergrift, 2012), and self-regulation (Vandergrift, 2002). Also, listening self-efficacy is assumed to have a direct and/or mediated influence on self-regulation (Zimmerman, 2002).

Self-regulation is investigated by examining only two variables based on theories of self-regulation and because of their direct relevance to L2 listening instruction. These two variables are self-regulatory strategies and metacognitive awareness (Zimmerman & Schunk, 2007; Zimmerman, 2008). Examining these two variables would also unravel the interaction between learners' beliefs (metacognitive awareness) and behaviours (self-regulatory strategies), which are the main pillars of Social Cognitive Theory (Bandura, 1986). Furthermore, it is presumed that self-regulatory strategies and metacognitive awareness have bidirectional relationships with listening self-efficacy (Rahimi & Abedi, 2014; Schunk & Ertmer, 2000). Within self-regulation, it is assumed that self-regulatory strategies have an influence on metacognitive awareness. Finally, it is hypothesised that motivational factors and self-regulation have a direct and/or mediated influence on L2 listening outcomes, and that metacognitive L2 listening strategy instruction will have a mediated influence on L2 listening outcomes.

Research question 1 (RQ1) aims to examine whether a programme of listening strategy-based

instruction has any effect on different quantitative outcome variables. To this end, the experimental (strategy instruction) and control (no strategy instruction) groups' test scores will be compared to identify whether there is a statistically significant difference on L2 listening outcomes, L2 self-efficacy for listening, L2 listening motivation, and L2 self-regulation. Statistical analyses will explore pre-test and post-test scores. Exploration of pre-test scores will identify whether the groups differed on each measure before the intervention started, so that this can be controlled for in further statistical tests. Examination of post-test scores could identify whether there are significant differences between the two groups and, therefore, whether the strategy instruction intervention could have affected any of the L2 quantitative outcome variables. Effect sizes were calculated to demonstrate the magnitude of any change in variables beyond chance (shown by statistical significance). Other measures, such as L2 prior attainment, were used as extraneous variables, and their effects were controlled for in the statistical analyses.

Therefore, RQ1 seeks to test the following hypotheses, based on the preceding studies:

1. Listening-strategy instruction will enhance the listening performance of participants as measured by two listening comprehension tests.
2. Listening-strategy instruction will enhance the self-efficacy for L2 listening of participants as measured by a questionnaire.
3. Listening-strategy instruction will enhance L2 listening motivation of participants as measured by a questionnaire.
4. Listening-strategy instruction will enhance the use of self-regulation strategies of participants as measured by a questionnaire.

Research question 2 (RQ2) is intended to explore whether there are relationships between L2 self-efficacy, L2 self-regulation, and L2 motivation. Correlational analyses are undertaken to establish the direction (if any) and the strength of relationships between these three variables, which the literature has identified as likely to be linked. However, correlation does not establish causality. The hypothesis for Q2 states that there are statistically significant correlations between L2 self-efficacy, L2 self-regulation, and L2 motivation as measured by Spearman Correlation.

Research question 3 (RQ3) aims to examine to what extent variables such as L2 motivation, L2 self-regulation, and metacognitive awareness predict L2 listening self-efficacy. In this set of analyses, stepwise regression techniques are used to establish relative weightings of variables on the dependent variable (L2 listening self-efficacy). Care is taken to avoid collinearity, by collapsing or eliminating variables found to have a correlation coefficient higher than .80 from the analysis (Cohen et al., 2018).

The hypothesis testing of RQ3 is set up to test more than one hypothesis. The null hypothesis (H_0) is a statement to indicate that there is no relationship between two variables. The alternative hypothesis (H_1) is a statement that contradicts the null hypothesis by stating that there is a relationship and/or difference between two variables (Cohen et al., 2018).

The null and alternative hypotheses postulated for RQ3:

- H0: Self-regulation does not predict Self-Efficacy.
- H1: Self-regulation significantly predicts Self-Efficacy.
- H0: Metacognitive Awareness does not predict Self-Efficacy.
- H2: Metacognitive Awareness significantly predicts Self-Efficacy.
- H0: Motivation does not predict Self-Efficacy.
- H3: Motivation significantly predicts Self-Efficacy.

2.11 Summary

This chapter was divided into several sections. The first section (2.1) provides a general overview of listening comprehension including the importance of listening comprehension (Section 2.1.1), top-down and bottom-up processing (Section 2.1.2), L2 listening research (Section 2.1.3), and factors affecting L2 listening comprehension (Section 2.1.4). Section (2.2.1) presents the main concept in this study, which is self-efficacy. The section starts with explaining the origin of self-efficacy theory and its relation to the social cognitive theory (Section 2.2.2), followed by describing sources of self-efficacy (Section 2.2.5), and the relationship between self-efficacy, academic outcome (Section 2.2.7), and self-regulated learning (Section 2.2.9). Next, learner motivation was reviewed in section (2.3.1), and its association with other concepts: self-regulation (Section 2.3.2), self-efficacy (Section 2.3.3), and L2 listening (Section 2.3.4). The next section focused on presenting the self-regulation (2.4.1) in relation to academic learning (Section 2.4.2). This is followed by introducing the Zimmerman's Cyclical Model of self-regulated learning (Section 2.4.4). The following two sections are the L2 learning strategies (2.5.1), and listener metacognition (2.6). Those two concepts (strategies and metacognition) fall under the self-regulation construct and constitute integral parts of self-regulatory behaviours. The interplay between this study's three main constructs (self-efficacy, motivation, and self-regulation) are then discussed in section (2.7), followed by the pedagogic tools to deliver the intervention of this project alongside the theoretical framework of the pedagogic intervention (Section 2.8). The

chapter then concludes with a final review of research questions (Section 2.9), and relevant research hypotheses (Section 2.10).

Chapter 3 Research Methodology and Design

3.1 Introduction

The present chapter gives a detailed account of the research design and methodology of this study. First, it discusses the research methodology (Section 3.23.2). Next, it provides an overview of the research design (Section3.3), followed by the data collection instruments (Section 3.4). The intervention is later described in terms of how to deliver the pedagogic tools as well as the design of the intervention (Section3.5). Section 3.6 discusses data generation for this study, which encompasses the generation of data at different phases. Additionally, the challenges encountered during hybrid instruction, the implications of employing a quasi-experimental design, and the researcher's role in the process are also addressed in this section.

Finally, Section 3.7 provides a detailed explanation of the analytical processes for each research question.

3.2 Research Methodology

3.2.1 Mixed Methods Research in L2 Listening and Research Paradigm

In order to explore the complex relationships between self-efficacy, motivation and metacognitive self-regulation, a mixed-methods approach (a combination of quantitative and qualitative research methods) is adopted in this study. Following a pragmatic paradigm, a paradigm used to support the use of mixed methods as a pragmatic way to understand human behaviours, the beliefs that stand behind those behaviours and the consequences of those behaviours, this research is driven by the research questions in order to provide practicable, reliable and valid answers focusing on 'what works' to answer the research questions put by the researcher (Chatterji, 2004; Creswell et al., 2003). Adopting a mixed-method approach for instrumentation, data collection and analysis for this study has an additional benefit of achieving a fuller understanding of the participants' learning behaviours and possible behavioural changes (Sandelowski, 2003), especially taking into account that listening is a receptive, ephemeral and an unobservable skill, and thus, requires a triangulation of more than one research instrument to understand its complex cognitive and affective processes (Vandergrift, 2004).

Mixed-methods approach has been scarcely applied in L2 listening literature. Only very few studies have adopted this approach to explore the L2 listening process in relation to different

individual variables (Altuwairesh, 2013; Lu, 2018; Mareschal, 2007; Smith, 2020; Vandergrift & Tafaghodtari, 2010). Applying a mixed-methods approach into L2 listening research is of theoretical importance because it examines the influence of individual values on learners' metacognitive behaviours as well the as the methodological values by probing into the effect of metacognition in L2 listening development through a mixed-methods approach perspective (Smith, 2020).

3.2.2 Triangulation Design within this Study: Leveraging Mixed-Methods for Comprehensive Insight

In this study, the application of the Triangulation Design was specifically employed to address exclusively the first research question. The primary objective was to attain a comprehensive understanding of listeners' self-regulatory strategy utilization. To achieve this, a mixed-methods analysis was implemented, which aimed to corroborate the qualitative findings with the quantitative analysis through the triangulation of data gathered from distinct methods. In this context, the chosen triangulation design, often referred to as the Convergence Model (to be discussed in Section 3.7.3.3), draws upon Creswell et al.'s framework (2003). This design, known as the 'concurrent triangulation design,' involves the simultaneous yet separate collection and analysis of data from quantitative and qualitative sources, ultimately converging the findings during the interpretation phase.

Within this study, self-regulation strategy usage was quantitatively assessed through the administration of questionnaires, while qualitative insights were gleaned through stimulated-recall interviews. These diverse data sets were then subjected to a process of comparison and contrast during the interpretation phase, thus allowing for a more comprehensive understanding of the phenomena under investigation.

The analysis of the stimulated-recall data involved both quantitative and qualitative methods. Firstly, a quantitative approach included counting the frequency of different strategy categories and organizing these results into a text matrix, allowing for a comparison between participants in the experimental group based on their pre- and post-test results. A quantitative analysis was then conducted using the Wilcoxon signed-rank test to compare-and-contrast these results and to corroborate the individual strategies collected from the stimulated recall sessions.

Secondly, a qualitative analysis was performed to examine the manner in which participants used strategies and to explore how the intervention influenced their utilization of listening strategies. Additionally, the findings from this qualitative analysis were used to compare-and-contrast the

results obtained from the strategy questionnaire with the insights gathered from the stimulated-recall reports.

For example, to quantify the change in 'Focusing on Comprehension Questions' strategy, the frequency counts of individual strategies were examined, comparing the percentage of students using this strategy at two different time points. Results revealed that the frequency use of 'Focusing on Comprehension Questions' at Time 1 was 33.3%, while at Time 2, the frequency use of this strategy was 42.8% among the experimental group. This quantitative analysis allowed for a direct comparison of the frequency of strategy use before and after the intervention even though the data were collected qualitatively, through stimulated-recall interviews. To further analyse and confirm these findings, the Wilcoxon signed-rank test was used to measure differences in the distribution of this strategy between the two time points for the experimental group (collected from questionnaires).

The results of the Wilcoxon Signed Rank test showed a significant difference between the experimental group's use of 'Focusing on Comprehension Questions' (W=258.50, rrb=-0.40). The negative value for *rrb* indicated a medium-size effect for the analysis, suggesting that the post-test group tended to exhibit a larger percentage of students employing this strategy compared to the pre-test group.

Finally, a triangulation design was utilized, specifically the Convergence Model by Creswell et al. (2003), to compare-and-contrast the results. After aligning the findings through this compare-and-contrast process, it was evident that 'Focusing on Comprehension Questions' showed a significant difference in p-values between the two time points, despite having equal medians. This suggests that while the strategy's frequency remained consistent, the intervention had a significant impact on its effectiveness or utilization among students.

3.2.3 Ethical Considerations

As part of normal ethical procedures, this study has received ethics approval from the Ethics Committee Review and Approval through the ERGOII online system (Ethics reference: 63557). The ethical process of this study began by clearly explaining the purpose of the research to the participants, as the participants had the option to retrieve their input at any given stage. The participants were requested to sign an online consent form and were provided with a debriefing form to explain information related to the research before the interview to avoid bias or influencing their answers. They also had the rights to be protected and had confidentiality and anonymity, which will encourage the honesty of participants. The procedures followed in this

research were in line with ERGOII instructions and COVID-19 (Coronavirus) guidance for research involving human participants provided by the University of Southampton.

3.3 An Overview of the Research Design

The adopted design is a quasi-experimental pre-test (Time 1) and post-test (Time 2) design, with one intervention group and one control group. The pedagogic intervention (listening strategy-based instruction) was integrated into the regular class time exclusively for the experimental group. It was incorporated into the same English language curriculum, which means that no additional listening materials were provided, except for external video recordings used as supplementary to demonstrate observational learning and modelling for the experimental group. Both groups studied listening tasks using the same resources, listening passages and activities were from the student's textbooks (Milestones in English – A2/B1 by Gary Pathare, 2016a, 2016b). The measurements and data collection for all groups were performed at pre- and post-test, where the pre-test (Time 1) was conducted during weeks 2 and 3, and the post-test (Time 2) during weeks 12 and 13 (See Figure 3.1).

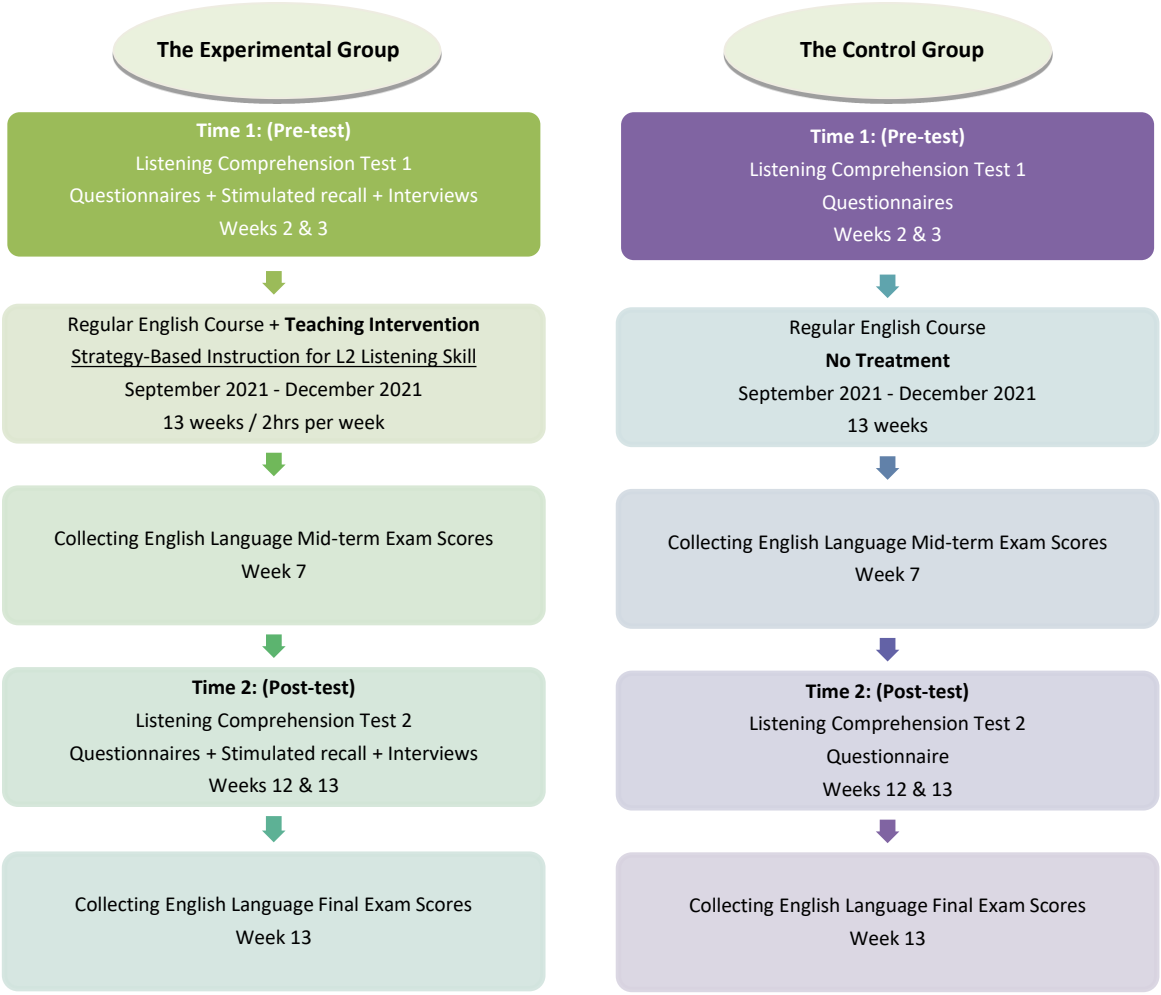

Figure 3.1 Research Design (Author)

3.3.1 Participants and Setting

3.3.1.1 Participant Sample

The participants in this study are first year university-level (tertiary) female students (N = 124) of English as a foreign language (EFL). A preparatory or foundation year is a one-year introduction to a full degree curriculum designed to prepare students to their entry into university. The classes were randomly assigned to either the control group (N = 62) or experimental group (N = 62) (See Table 3.2). The mean age of the students ranged from 18 to 20 years old. The students were reported to have an average of seven years of formal English education in public schools. In terms of proficiency level, the participants included in this study had different English proficiency levels. Each group is a mixed-proficiency language class (MPLC), which refers to a class of students with different language proficiency levels (beginner, intermediate and advanced) receiving the same instruction. In the English Language Centre (ELC), an English placement test is mandatory to place

each student into the appropriate English language level. However, due to the coronavirus (COVID-19) pandemic, the English placement test was cancelled, and all the students were placed in mixed-proficiency language classes. The sampling types used for this study are both non-probability sampling and stratified purposive sampling for conducting the interviews (See Table 3.1). Table 3.3 demonstrates the demographic characteristics of the participants from both groups.

Table 3.1 Study Type and Sampling

Study Type	Quasi-experimental study between two groups (one experimental group, *N=62*, and one control group, *N=62*) (pre- and post-tests)
Sampling	Purposeful random sampling: a random sample was taken from a small number of cases from the population (a probability sample) (*N=6*) that has already been drawn from a purposive sample (*N=124*)

Table 3.2 Study Participants (Control and Experimental Groups)

Stage	Control Group	Experimental Group	Total
Initial	N= 74	N=71	N=145
Follow-up (completed the tests)	N= 70	N= 66	N=136
Follow-up (completed tests and questionnaires)	N= 62	N= 62	N=124

Table 3.3 Demographic Characteristics of the Participants

Sample Characteristics	*Control*				*Experimental*			
	n	**%**		***M***	***SD***	***n***	**%**		***M***	***SD***
		Yes	*No*				*Yes*	*No*		
Age	62	Age 18 = 69.5%		18.55	0.95	62	Age 18 = 56.5%		18.66	0.92

Sample Characteristics	*Control*					*Experimental*				
		Age 19 = 14.5% Age 20 = 8% Age 21 = 8%					Age 19 = 29% Age 20 = 6.5% Age 21 = 5%			
Participant Confidence in English Listening Proficiency										
Having English listening classes in high school	62	98%	2%	1.02	0.13	62	92%	8%	1.08	0.27
Having prior English listening classes in college	62	15%	85%	1.85	0.36	62	13%	87%	1.87	0.34
Participating in English listening activities outside the English listening class	62	8%	92%	1.92	0.27	62	27%	73%	1.73	0.45
Length of Learning English										
Time spent listening to English language media	62			0.52	0.24	62			0.55	0.28
Time spent in contact with English native speakers	62	Not at all: 56% Not often: 13% Sometimes: 23% Often: 3%		1.87	1.17	62	Not at all: 50% Not often: 16% Sometimes: 29% Often: 2%		1.92	1.08

Sample Characteristics	*Control*					*Experimental*				
		Very often: 5%					Very often: 3%			
Travelling or living in English-speaking countries for more than 3 months	62	5%	95%	1.95	0.22	62	11%	89%	1.89	0.32
Educational level when started to learn English	62	Pre-school: 3% Primary school: 69% Intermediate school: 19% High school: 8%		2.32	0.67	62	Pre-school: 16% Primary school: 48% Intermediate school: 31% High school: 5%		2.24	0.78
Years spent learning English	62	1-3 years: 10% 3-6 years: 16% 6-10 years: 58% More than 10 years: 16%		2.81	0.83	62	1-3 years: 10% 3-6 years: 31% 6-10 years: 44% More than 10 years: 16%		2.66	0.87
English Language Use										
Percentage whether parents (or close family members) speak English well	62	48%	52%	1.52	0.50	62	55%	45%	1.45	0.50

Sample Characteristics	*Control*					*Experimental*				
Percentage whether you (or your close family members) speak more than one language at home?	62	31%	69%	1.69	0.46	62	27%	73%	1.73	0.45

3.3.1.2 Setting

This study was conducted in the English Language Centre (ELC), which is one of the departments in the College of Social Sciences (CSS) at UQU, Saudi Arabia. The ELC is primarily concerned with the teaching of General English, with the aim of helping students reach the pre-intermediate level of proficiency. It also introduces an English for Specific Purposes (ESP) course that varies according to the specific needs of professional colleges. The study took place during the first semester (teaching of General English). Students were taught General English for 16 hours per week. To move to the next level (English for Specific Purposes), students had to pass two examinations (mid-term and final exams) administered by the ELC. This intensive language learning context, which focuses on all aspects of the English language, and all four core skills — listening, speaking, reading, and writing, provided a rich environment for the experimental and strategy-based approach of this study. The study was conducted over a period of thirteen weeks where the listening portion spanned over a period of two hours per week, from September to the end of December 2021.

3.4 Data Collection Instruments

The measurement instruments of this study were eight instruments including: English Listening Comprehension Tests, two questionnaires (the first questionnaire is divided into four sections, the second one is divided into two sections), stimulated recalls, semi-structured interview, English Language Proficiency tests, teacher's diary, and L2 listening documents collected from in-class work. The questionnaire items were translated to Arabic to create Arabic-language forms of the measures. The translated versions of the questionnaires were first tested and validated linguistically by two proficient translators and were piloted with six participants, who were not part of the research sample. The instruments were used to complement, explain, and verify the various findings elicited by each instrument in the investigation of the research questions. The tasks are summarised in Table 3.4.

Table 3.4 Instruments used in the current study.

Instrument		Acronym	Description
English Listening Comprehension Test (ELCT)	Long Listening Comprehension	LLC	Four 5-minute-long passages from the IELTS. The participants listened, took notes, then answered seven multiple-choice questions or responded in writing.
	Short Listening Comprehension	SLC	Two 2-minute-long passages adapted from the IELTS. Participants listened, then answered six multiple-choice questions or responded in writing.
English Language Proficiency Scores		ELPS	English language proficiency scores were collected from the Mid-term and Final unified exams administered by the educational institution. The exams were administered to Elementary (A2) and Intermediate (B1) students.
Metacognitive Awareness Listening & Self-Regulated Listening Strategy Questionnaire		MALQ & SLSQ	A 33-item questionnaire targeting: a) students' reported use of strategies in a listening task, as well as metacognitive knowledge about themselves as L2 listeners, the nature of listening, and listening strategies (Vandergrift et al., 2006) (21-items), and b) a self-regulated listening strategy scale (12-items).
The English Listening Self-Efficacy and Motivation Scale		ELSMS	A 37-item questionnaire measured: a) students' sense of self-efficacy in connection with English listening comprehension, measuring the extent to which they felt they have the ability to successfully perform English listening related tasks (19-items), b) examined students' motivation and attitude towards English listening comprehension (7-items), and collected students' demographic information (11-items).

Instrument	Acronym	Description
Stimulated Recalls	SR	Used to elicit data on the participants' strategy use, metacognitive knowledge, and metacognitive self-regulation. After completing a listening activity, the participant had to complete a stimulated recall session immediately to reflect on their strategy use and the process of listening comprehension.
Semi-structured Interviews	SI	Used to collect data on participants' reported strategy use in order to triangulate the data from the stimulated-recalls, as well as to capture additional strategic behaviours that might have gone unreported (Vandergrift & Baker, 2015).
Teacher's Diary		Utilised to collect data concerning language learning styles and strategy use of students as well as the changes in strategic behaviours and improvements over a course of the intervention.
Listening Documents (Classroom Data Collection)		Used to uncover which strategies the students employed, assess variations in their ability to apply listening strategies, understand their metacognitive knowledge, and examine how they self-regulated their listening using metacognitive processes.

3.4.1 English Listening Comprehension Tests

The Listening Comprehension Tests are sourced from 2nd Edition of Barron's IELTS book from Dr Lin Lougheed (2010) employed to examine students' English listening performance. The International English Language Testing System (IELTS) is an international standardized test intends to measure English language proficiency for L2 speakers. IELTS listening test was chosen due to the stringent process it has undergone to ensure the validity and reliability of its content through experts from the seven-stage Cambridge ESOL Question Paper Production Cycle (CEQPPC)

(Aryadoust, 2013). It remains noteworthy to mention that the content validity – refers to how the measurement represents all aspects of the construct, of the listening test items are questionable since they require test-takers to perform other skills while they listen, such as reading and writing (Bejar et al., 2000), which would affect the scoring process (Aryadoust, 2012). However, the listening component of the IELTS test is still viewed to be an appropriate indicator of listening proficiency because it is based on rigorous psychometric features and dependable reliability (Alvai et al., 2018).

The listening test (Time 1) requires students to listen to a number of authentic dialogues in English and verify comprehension by completing multiple-choice questions (MCQs) and respond in writing the missing information. It consists of two parts (long "part A" and short "part B" listening comprehension tests). In part A, students are required to listen to five short conversations and answer the following MCQs or fill-in the missing information. Part B consists of one long conversation followed by seven MCQs. Likewise, the listening test (Time 2) comprises 13 MCQs and consists of short (6 items) and long (7 items) listening comprehension parts (see Appendices A & B).

The participants had to listen to the stimulus in parts A and B only once. The types of listening tested involve: (a) choosing contextually appropriate responses, and (b) processing texts of realistic spoken language to understand linguistic information unequivocally included in the text and to make inferences implicated by the content of the text (Buck, 2001; Vandergrift & Tafaghodtari, 2010). Each test took approximately 20 minutes to complete.

To address one of the goals of this study; exploring participants' listening comprehension development, it should be noted that the design of the listening test (Time 1) was planned to be easier than the design of listening test (Time 2) in order to detect any apparent improvement following the intervention. To do so, piloting was essential to verify the level of difficulty for both pre- and post-tests. Moreover, ensuring the clarity of the instructions and questions were necessary to avoid threats to internal validity of the tests (Mackey & Gass, 2021). After the piloting phase, the internal consistency (Cronbach's alpha) for the IELTS listening test (25 items) was (Cronbach's $\alpha = 0.90$).

3.4.2 Questionnaires

3.4.2.1 The English Listening Self-Efficacy and Motivation Scale & Demographic Information (ELSMS)

This questionnaire includes 37 previously randomized and piloted items and comprised of four sections (see Appendix C). Additionally, it is worth acknowledging that all the labels for the Likert scales in the following questionnaires were sourced directly from the existing literature as explained in each section.

Section One: The English Listening Self-Efficacy Scale

The first section is the listening self-efficacy, needed as a dependent variable in this study, The Listening Self-Efficacy Questionnaire consists of 6 items. Participants were asked to respond to items by indicating how sure they are about each statement on a 5-point rating scale from 5 "Completely Sure" to 1 "Not Sure". Each statement started with "How sure are you that you can listen and … ". The use of the wording "can" was recommended by Bandura (2006) to maintain the content validity of the self-efficacy items and to accurately reflect the perceived capability of the respondents. Bandura (2006) suggested using a numerical rating scale "ranging from 0-100, where 0 is (Not confident at all) and 100 is (Highly confident)" to accurately measure efficacy beliefs. He also argued that using 5- or 6-interval rating scales could be less reliable in capturing individual's self-efficacy beliefs. However, the self-efficacy instruments in the current study followed a 5-point Likert scale to be compatible with the Metacognitive Awareness and Self-Regulated Strategy instruments and to make it easier for the participants to respond following the same rating scale type. Questionnaire modifications were based on the Reader Self-Perception Scale (RSPS) by Henk and Melnick (1995) and the English Listening Self-Efficacy Questionnaire by Chen (2007).

The questionnaire was pilot tested in order to determine the clarity and to eliminate the difficulties in wording for L2 speakers. This step is crucial to minimize threats to internal validity (Mackey & Gass, 2021). The piloting was administered in electronic format using an online survey creator Microsoft Forms (part of Office 365). Feedback was gained from participants regarding the type of questions and their format.

Section Two: Source of Self-efficacy Information Scale

The second section is for measuring the source of self-efficacy and includes 13 items. It is adapted from Kassem (2015) and was constructed based on the framework of Reader Self-Perception Scale (RSPS) developed by Henk and Melnick (1995). Although the RSPS was developed as a reading

scale; however, due to the similarity of reading and listening as two receptive skills, it was used as a reference to construct the listening self-efficacy questionnaire. The RSPS covers three main self-efficacy aspects related to: (1) performance outcomes (progress): the comparison between one's perceptions of current performance and the past, (2) vicarious experience (observational comparison): one's perceptions of his/her own performance compared with others, and (3) physiological state: one's internal emotions during task performance (Henk & Melnick, 1995). The questionnaire is further modified to include Social Feedback (verbal persuasion), an important source of self-efficacy, to address the first research question. Items with negative statement were reverse coded so that higher score would reflect higher self-efficacy (items 7, 9, and 13).

During the piloting phase, the internal consistency (Cronbach's alpha) of the listening self-efficacy questionnaire (comprising section one and section two) demonstrated an acceptable internal consistency of (Cronbach's $\alpha = 0.73$) for all the 19 items.

Section Three: The English Listening Comprehension Motivation Scale (ELCMS)

The third section is the English listening comprehension motivation scale and consists of 7 items on a 6-point Likert-scale, ranging from 1 "Strongly Disagree" to 6 "Strongly Agree", operationalized to measure learners' motivation and attitude towards English listening comprehension. This scale was constructed by Hsu (2006) based on the framework of Chang's Intrinsic Motivation Orientation Scale (2001). The aim of this scale is to measure learners' motivation levels for practicing English listening comprehension. The outcome of the item analysis indicated higher internal consistency if items number 3 and 7 were excluded from the questionnaire (alpha is deleted); thus, to ensure the reliability of the data, those two items were eliminated during the statistical analysis. Although two items were excluded from this questionnaire (and only five items remained), it has been asserted that acceptable internal consistency reliabilities can still be fulfilled even with only three items (Cook et al., 1981). Item number 3 was excluded because it negatively correlated with the other items (See Appendix C - section three). The item is a negative statement: "I often feel nervous and uncomfortable when learning English listening comprehension". It has two negatively worded items "nervous" and "uncomfortable", which should be avoided or replaced with positive adjectives. Item number 7 was also excluded but for a different reason. The length of item 7 was apparently long for the participants. It states: "I would like to learn English listening comprehension well because I want to make friends with English speakers and hope to be able to go abroad for advanced study in the future". Dörnyei (2003) pointed out that questionnaire items are better be simple and short (not exceeding 20 words). Overall, this listening motivation questionnaire showed a good internal consistency of (Cronbach's $\alpha = 0.86$) after pilot testing and the elimination of the two items.

Section Four: Demographic Information

The demographic data describing the characteristics of the participants were gathered during the pre-test only (Time 1). Demographic information assists in better understanding certain L2 learning background of the participants. For instance, years of exposure to L2 would indicate the level of general language proficiency, which is in turn associated with explaining listening comprehension (Wang & Treffers-Daller, 2017). This questionnaire consists of 11 open-ended items at the end of the instrument, inquiring about the participants' demographic information. The data includes information about participants' age, English listening proficiency, length of learning English, exposure to English language, and English language use. This survey was adapted from Chen (2007) but was modified to meet the objectives of the current study. Four items were excluded from the original survey, which are related to gender, score on English subject area of college entrance exam, year of undergraduate education, and location of high school in Taiwan, while two more items were added (items 12 & 13). The last two items address practicing English as a foreign language at home (by parents or family members) and whether the participants and/or their family members speak more than one language at home. The questionnaire was pilot tested to ensure its comprehensibility and appropriateness and that all the questions were well defined and understood.

3.4.2.2 The Metacognitive Awareness Listening & Self-Regulated Listening Strategy Questionnaires (MALQ & SLSQ)

Section One: The Metacognitive Awareness Listening Questionnaire (MALQ)

To investigate learners' reported strategy use, metacognitive awareness and self-regulated abilities, the Listening Strategy Questionnaire (see Appendix D), adapted from (Vandergrift et al., 2006), was utilized. This self-report instrument does not only cover aspects related to L2 listening comprehension strategy use, but it also highlights other aspects related to learners' self-regulation, self-confidence, and motivation. It was developed based on review of recent literature on metacognitive awareness listening, listening comprehension strategies and self-regulation (Vandergrift et al., 2006). To align with the main objective of encompassing all facets of metacognitive knowledge as outlined by Flavell (1976, 1979) and Wenden (1991), Vandergrift et al., (2006) extended their exploration beyond strategic knowledge (Metacognitive). This encompassed the inclusion of items related to personal understanding (Socioaffective) and knowledge about the task or text (Cognitive). By following these principles, they compiled an inventory comprising 21 items distributed among five subsections. These subsections are designed to align with four distinct categories of strategy knowledge: problem-solving, planning and evaluation, mental translation, directed attention, and metacognitive person knowledge.

However, the items are not balanced across strategy types (i.e., Metacognitive (*n* = 10), Cognitive (*n* = 8), Socioaffective (*n* = 3) strategies). This uneven distribution of items across these three types of strategies is likely due to the nature of language learning and the way these strategies are categorized, which also reflects the complexity and interconnectedness of metacognitive, cognitive, and socioaffective strategies in language learning (Anderson, 1999; Vandergrift, 2003b). Moreover, according to Marzano et al. (1988), metacognition is intertwined with cognitive development. It is both a result of cognitive growth and a driver of it. Therefore, metacognitive strategies tend to be more numerous in L2 listening because they involve broader aspects of self-awareness and control over the learning process, while cognitive and socioaffective strategies may have fewer items in this questionnaire due to their more specific or less common nature in language learning contexts. The reason for choosing to adopt this questionnaire is because it tackles the perceived use of listening strategies that are associated with the study aims. The MALQ is consisted of 21 items probing students' use of three types of listening comprehension strategies: metacognitive (N = 10), cognitive (N = 8) and socioaffective (N = 3). Participants are asked to rate each strategy statement on a 6-point Likert scale ranging from 1 "Strongly Disagree" to 6 (Strongly Agree). The MALQ was validated with a sample of 966 respondents of different proficiency levels in various countries. It also possesses robust psychometric properties (for more details on the MALQ validation process, see Vandergrift et al., 2006). Although MALQ was validated and field tested in different countries and contexts among different L2 proficiency levels, its validity was not tested in a similar context/culture to the current study. To address the construct validity of MALQ, piloting was conducted to figure out how the participants in this study would experience and understand the questionnaire. Also, because the questionnaire was translated to their L1 (Arabic), this step was fundamental to identify any technical errors in the questions. After running the piloting, the 6 participants marked MALQ as their most preferrable questionnaire due to its comprehensibility, type of questions, and layout. It also demonstrated an excellent internal reliability (Cronbach's $\alpha = 0.96$).

During the post hoc item analysis phase, items with negative statements (ones with negative wording and constructions) were reverse coded, so that higher scores would reflect higher metacognitive awareness strategy use and vice versa (items 6, 9 and 10).

Section Two: Self-Regulated Listening Strategy Questionnaire (SLSQ)

The second part of the questionnaire is the self-regulated strategy questionnaire, which comprises of 12 items on a 6-point Likert-scale, ranging from 1 "Strongly Disagree" to 6 'Strongly Agree' probing students' self-regulated listening behaviours and strategies: self-regulatory

behaviours in listening (N = 4), meta-affective listening strategies (N = 3), meta-sociocultural-interactive strategies (N = 3), and seeking social assistance strategies (N = 2).

The items of the questionnaire came from several sources (Habók & Magyar, 2018; Oxford, 2016; Wang et al., 2013; Zeng & Goh, 2018), but all the items were adapted to listening in English. The piloting revealed good internal consistency of (Cronbach's $\alpha = 0.80$). Item number 5 was reverse coded because it contained negative wordings: "I notice if I am tense or nervous when listening to an English passage".

3.4.3 Interviews

3.4.3.1 Stimulated-Recall Interviews

There are different methods to elicit data on strategy use and metacognition in L2 listening research. Stimulated recall is one of the most recent popular ways that has been profitably applied, in conjunction with other methodologies, to explore L2 listeners' cognitive processes and strategy use at the time of a task (Field, 2009; Mareschal, 2007; Rukthong & Brunfaut, 2020; Smith, 2020; Vandergrift & Tafaghodtari, 2010). Gass and Mackey (2000) described the stimulated recall as a type of retrospective methodology where participants are asked to verbalize their thought processes immediately after performing a task. Stimulated recall is different from think-aloud methodology because the cognitive verbalization in stimulated recall occurs retrospectively while in think-aloud it occurs concurrently. In order to help participants recall their cognitive processes, a stimulus is used (e.g., a videorecording of the participant performing a task, or a filled-out questionnaire) followed by participants' verbalization of their thought processes. Because L2 listening is an unobservable cognitive process, it creates challenges for any educator/researcher to assess or measure it accurately compared with the other skills (Brown, 1986). For a listening comprehension task, participants can listen to the whole listening passage again, right after the first listening, while allowing the participants to take control of the tape, to pause when needed, then resume with the verbalization process (Smith, 2020).

For more accurate elicitation, stimulated-recall interviews should be conducted immediately after the listening task (Chamot, 2005). Therefore, the stimulated recall was conducted right after completing the second Long Listening Comprehension test (LLC) and after answering its multiple-choice questions (consecutive recall). Participants were given clear instructions and minimum training on how to perform the recalls; how to pause and play the audio and how to verbalise their strategy use. During the piloting, each participant was given control of the recording and was directed to pause it to answer these questions: (a) "What did you understand when you listen to the conversation?"; (b) "What ways did you use to understand the conversation?"; (c) "How did

you deal with listening difficulties? If any?"; (d) "Why did you write down these notes?" (See Appendix E). Answering these questions while consciously recalling the cognitive processes has been criticized by some scholars who argued that asking these questions would distract the participants' attention from the information- and thought-processing during the task, which in turn, would be a 'threat to validity' (Ericsson & Simon, 1993; Smith, 2020, p. 63). However, in L2 listening empirical studies, such questions can help elicit more strategies from the participants and can guide them to verbalize relevant information, especially if they did not know how to express their thoughts (Yeldham & Chen, 2014, 2016). To avoid validity threats and to ensure that the participants have fully verbalized their thoughts during the listening task, these two questions were also added: (a) "Is there any additional information or commentary you would like to provide regarding this portion?", and (b) "Did any other thoughts come to mind?". Moreover, the researcher provided the participants with more clarifications for each question to assist them with the recalls. For example, when the researcher asked: "What ways did you use to understand the conversation?". It was followed by: "While listening, have you applied any specific methods to help you listen?". These clarifications lead to elicit more accurate strategy use and provided further information regarding the cognitive process during listening.

During the course of stimulated-recall sessions, the participants were given the choice to conduct the stimulated recall in either Arabic (their L1) or in English (their L2); however, they all preferred English. The listening audio used for the stimulated recall as the stimuli in Time 1 differed in its level of difficulty from the one used in Time 2. The audio used in Time 2 was more difficult and contained some technical words related to the participants' personal and career interests (See Appendix F for the audio scripts used in recall sessions and the listening comprehension questions). The software used to conduct the stimulated recall interviews is Cisco Webex Meetings. First, the researcher shared the audio files and questions online. Each participant had to read the questions then listen to the track. Finally, the participant had to type the answers in the chatting box or say it verbally. The stimulated recall protocols were recorded, transcribed verbatim, and coded by the researcher. To ensure reliability for coding and analysing stimulated recall data, tests of interrater reliability were carried out (see Section 4.2.2.1).

3.4.3.2 Semi-Structured Interviews

After the initial analysis of the questionnaires data, semi-structured interviews were conducted to focus on other important aspects and themes in relation to strategy use at both Times 1 and 2 (see Appendix G). Semi-structured interviews were chosen to explore participates' listening experience and to get an in-depth understanding of their perceptions in relation to self-efficacy and self-regulation in listening development. These include: L2 listening process, metacognitive

awareness, effective use of L2 listening strategies, how to deal with L2 listening difficulties and comprehension gaps, and how to deal with negative feelings during the L2 listening process (e.g., anxiety). This method allows to capture more strategic behaviour from the participants as well as their own perceptions regarding deploying listening strategies in hybrid context. All the interviews were administered online in an oral/aural synchronous format. The main reasons behind choosing online interviewing were: (a) to abide by the COVID-19 preventive measures, (b) the flexibility in contact times and location, and (c) to minimise the possibility of power threats between the interviewer (researcher/teacher) and the interviewees (students) (James & Busher, 2015, as cited in Cohen et al., 2018).

All the online interviews were recorded, transcribed, and coded. Coding of the transcripts will be discussed in detail (see Section 3.7.6.2).

3.4.4 Teacher's Diary

According to Bailey and Ochsner (1983), a language teacher diary is an introspective tool that allows teachers to record their second language teaching experience, thoughts, and perceptions. Diary-writing in an education L2 context is not only used as an instrument for methodological reflection; rather, it can also be accounted for professional development (McDonough, 1994). The reason behind applying teacher diary is to assist with the triangulation of the data. Although the data collected through diaries lack the generatability quality (due to the small population involved in diaries) (Griffee, 2012), they still provide a rich source for learning styles and strategies. Through teacher's reflections and observations of learners, it is possible to obtain data concerning language learning styles and strategy use as well as the changes in strategic behaviours and improvements over a course of time (McDonough, 1994). The data from the teacher diary is analysed qualitatively by reading the entries to find reoccurring patterns and themes, then a list of identified themes is created, which is accompanied by quotes to back up each theme. In diary study research, issues related to validity and reliability are usually overlooked. This could be attributed to the assumptions related to subjective self-report data to be valid and reliable (Griffee, 2012). However, validity can still be claimed if the results from teacher diary match the findings from other data collection instruments during the triangulation process (Schmidt & Fronta, 1986) or match our expectations based on theory – construct validity (Bachman, 1990).

3.4.5 Listening Documents

The listening documents include in-class listening worksheets and handouts, e.g., Guide for Listening handout, Listening Self-Evaluation form, and collected worksheets from pair-work

listening activities. Worksheets are considered as useful supplements to the textbook because they function as assessment tools that measure the learning progress and outcomes. Utilising listening documents as a classroom collection tool will show which strategies did the students deploy and how they were used and how students differed in their ability to deploy listening strategies, metacognitive knowledge and to metacognitively self-regulate their listening (e.g., to monitor their comprehension and how they orchestrated strategies to solve listening problems). The analysis process of these documents is similar to the one applied for the teacher's diary. The data were organized into emerging categories to identify themes before interpreting the findings. For example, students were asked to participate in a 'Track your Listening Strategic Plan' activity. In this activity, the teacher shared a Google spreadsheet with the students, which contains their names and names of listening strategies. The students were asked to complete a listening activity in pairs then tick the strategies they have deployed and add any additional comments they would like to share. By collecting the types of strategies students deployed, it was easier to probe into the most used strategies by counting the frequency of strategy use for each listening activity. Also, students' additional comments added more information on the listening process and how they managed to solve listening problems.

3.5 The Intervention

3.5.1 Delivery of Pedagogic Tools

The strategy-based approach intervention took place in a continuous cycle. The pedagogical sequence (See Appendix M) served to integrate metacognitive, cognitive, and socio-affective strategies with conventional listening activities in each lesson. Since learning to become strategic in listening starts with a more controlled and guided process of learning until these strategies become more automatised, teachers play a critical role at the early stages of this intervention to scaffold and provide feedback when needed (Graham & Macaro, 2008). Scaffolding is the process of providing support to learners while they perform a listening task. Teachers or more proficient peers can scaffold low-level learners. Such scaffolding, or 'evaluative feedback' is a form of verbal persuasion, which is one of the main four pillars of self-efficacy sources (Bandura, 1997, p. 101). Schunk (1984a) also confirmed this by explaining that receiving ability feedback at an early stage of skill development has a greater influence on enhancing the beliefs of personal self-efficacy. Moreover, the design of the selected listening activities included in this intervention was based on Zimmerman and Moylan's (2009) cyclical model of self-regulated learning (i.e., raising awareness, planning, strategy use, reflection/evaluation, and feedback). For instance, one of the activities 'Listening for Thought Group', where students had to read a script (typed without any

punctuation) and use slanting lines to identify boundaries between group of words to group words into units. They first had to discuss the topic they were going to listen to and discuss what they thought of this content (prediction), then the concept of 'units/thought group' was introduced to them (raising awareness) by explaining the importance of identifying the general message or comprehending the general meaning (top-down processing) followed by reading the script while dividing up the stream of speech into thought groups focusing intensely on the sound or tone units (bottom-up processing). After they marked what they thought is the natural break between words, they had to listen again to check their answers (monitoring/evaluation). Feedback was conducted after the activity to discuss any disagreements or to refer back to the recording to explain why some pauses were marked in a certain way. Likewise, the 'Speech Segmentation Patterns' activity, which is used to identify words and word boundaries in connected speech to distinguish impressionistically homophonous sounds (bottom-up decoding), was conducted following Zimmerman and Moylan's (2009) cyclical model of self-regulated learning. However, instead of marking pauses between words, students were asked to respond to a question (top-down processing/comprehending a message) by choosing the correct answer from sub-phonemic information (i.e., the phonetic correlates of a lexical word boundary are often sub-phonemic/allophonic) (bottom-up processing). These listening activities are important because both types of processing: top-down, which is more about language experience, and bottom-up, which is more about decoding the auditory input, co-occur together during speech perception, which is essential in understanding language processing in relation to general cognitive functioning (Shuai & Gong, 2014).

Since some of the learners' proficiency is at the beginner level, teachers are advised to start the intervention with teacher modelling to explain to the learners some of the mental processes applied to construct meaning from the aural input (Vandergrift & Goh, 2012). This can be done with teachers sharing their own thinking process in a 'think-aloud' procedure while working on a listening task and reflecting on their own strategy use during task performance (Chamot, 2004). Moreover, teachers need to raise learners' awareness of listening strategies before conducting the intervention. This stage is crucial, as it could help students recognise the importance of using strategies during the listening activity and the purpose behind this pedagogical intervention.

For example, students can be asked to complete a listening task and then asked to identify the strategies they used while performing the task in a group discussion (Grenfell & Harris, 1999). Another way could be by sharing some statements with the students related to listening strategy use (collected from a previous group of students) and asking them to reflect on each statement and share their opinions. They can evaluate each statement, as to whether the student was in control or was there a lack of control during the listening process (Graham & Macaro, 2008). Later,

the teacher can share his or her insights and give a presentation on the effectiveness of listening strategies to overcome some listening difficulties and how to deal with speech rate and unknown words strategically.

Therefore, in light of the known issues in L2 listening, some materials (adopted from Vandergrift, 2004; Graham & Macaro, 2008) were implemented in this pedagogic intervention. They are:

1. Activities for raising awareness of thought groups (see Appendix H);
2. Activities for raising awareness of speech segmentation patterns (see Appendix I);
3. Strategy list to review when doing listening activities in class (see Appendix J);
4. Listening Guide sheet to be filled out during the listening activity (see Appendix K);
5. Self-evaluations of the strategy use, how effective they were, and how to improve the strategy use for the next listening activity (see Appendix L);
6. Feedback provided by the researcher on the students' self-evaluation sheets.

Moreover, the pedagogic intervention in this study incorporated the following features:

1. The implemented listening strategies were adopted from Vandergrift (2004). Other listening strategies were tailored according to the students' needs (which were diagnosed and identified during the preliminary phase of the study).
2. Strategy modelling was integrated to raise students' awareness of strategy use and to explain to them how to orchestrate more than one strategy concurrently.
3. Teaching listening strategies through designed observational learning materials (to integrate vicarious experience while listening).
4. Teacher's scaffolding and effective feedback on strategy use and how to self-regulate the listening process through goal setting and strategic planning were also incorporated, especially with low achievers.
5. Helping students recognise the role of strategy use and self-regulated learning in enhancing their self-efficacy and motivation and how this would positively affect their listening outcomes by carrying out strategy group discussions.

3.5.2 The Design of the Intervention

3.5.2.1 Designing the Lesson Plans

The teaching intervention was designed before the semester commenced to be delivered in a face-to-face teaching (See Appendix N). The lesson plans were prepared to be addressed to B1-level group (corresponds to English Independent users) on the Common European Framework of Reference for Languages (CEFR) scale (Council of Europe, 2001). CEFR is a guideline used for grading an individual's language proficiency across Europe and consists of six reference language levels (A1/Beginner, A2/Elementary, B1/Intermediate, B2/Upper-Intermediate, C1/Advanced, C2/Proficiency). However, due to the cancellation of the placement test (as mentioned in Section 3.3.1.1), all the prep-year English groups started the English course with level A2/Elementary level regardless of their actual language proficiency level. This, in turn, led to making some changes and modifications to the original lesson plans to include lessons from A2-level textbook besides B1-level textbook to be covered throughout the first semester. Moreover, to maintain physical distancing inside the classroom, refers to maintaining physical space when in public areas (at least 6 feet from one another) in response to the coronavirus disease (COVID-19) pandemic, the Ministry of Education in Saudi Arabia issued that all educational institutions in the kingdom must implement hybrid learning models (distance learning). As discussed in Section 2.8.2, hybrid learning refers to the educational model where some students attend the class physically, while others attend virtually from home. The teaching in hybrid classes is synchronous, where the teacher instructs the in-class group and the remote students' group simultaneously. During the intervention, in Week 3, the university decided to split groups of whole classes into two; one group attended in-person for a whole week (group A) while the other group attended virtually from home (group B), then they switched places the following week. This arrangement was implemented to ensure COVID-19 Standard Operating Procedures (SOPs) were followed keeping physical distancing inside classrooms. Both teacher and students were instructed to wear a face mask during the whole face-to-face interaction. Group B attended each lesson remotely via Cisco Webex Meetings.

3.5.2.2 Textbooks and Course Materials

Two textbooks were used to teach the English Language course. The first textbook is Milestones in English (level-A2/Elementary) and the second one is Milestones in English (level-B1/Intermediate). Both textbooks are designed for adults studying a foundation or preparatory year at university. Each textbook helps students develop the language skills needed to function in an English-speaking academic context. Moreover, Milestones in English incorporates an integrated approach to language learning, where students can use a combination of language skills (listening, reading,

speaking and writing) within a single activity to emulate a situation that they may come across in the real world. Also, Milestones in English provides support for teachers, who are teaching hybrid classes, by providing iTools, a digital classroom presentation tool designed for use on whiteboard (in class) or laptop computers (online). The iTools contains an e-book (digital) format of the textbook as pages from the student's book can be displayed on screen with integrated audio and video with optional script for students to read along whilst they listen or watch.

In terms of listening, Milestones in English adopts an interactive, interpretive approach to listening, where listeners use both bottom-up and top-down processing in understanding messages. However, within academic contexts, the information is often transmitted one-way/unidirectional through lectures or talks. This is identified as the transactional use of language, which is more message-oriented and has the purpose of conveying messages as opposed to interactional use of language, where the listener is expected to respond to the speaker. Transactional listening requires comprehending the messages precisely, and sometimes listening to get the correct answer. The main goal of Milestones in English is to develop the listening skill of learners through activating both bottom-up and top-down processing rather than testing their listening comprehension with little attention paid to development. This approach to L2 listening instruction aligns with Suzanne Graham's (2017) view of listening pedagogy, which stresses on the need to engage with theory and research-based principles to inform listening pedagogy, mainly, to understand the process of listening development in order to help teachers deal with issues related to listening in EFL contexts. In the same way, the textbook provides a variety of listening activities, e.g., phonological features like connected speech, and discourse features like time sequencers. The textbook also addresses learners' needs in listening in three different ways; (a) the exposure to the appropriate input to present phonetic features. Learners are exposed to short clips in A2 textbook to distinguish connected speech, reduced forms, function words and weak sounds like the schwa /ə/. Such input is accompanied by small-scale exercises that focus on examples of just one of the phonetic features at a time. The second way of addressing listeners' needs is through (b) training students the five skill demands of psycholinguistic models of listening, which are: decoding (matching signals to the sound system of the language), lexical search (matching group of sounds to the vocabulary knowledge), parsing (converting utterances into mental representations based on syntactic structures), meaning construction (interpretation of the spoken text in terms of context and the purpose of the speaker), discourse construction (building on previous information) (Field, 2008). The third way of tackling learner's needs is through (c) compensating the comprehension gaps that lower-level L2 listeners often face when encountering difficult speech. One way to overcome this difficulty is through equipping lower-level L2 learners with the appropriate listening strategies, which enable

them to build more complex meanings despite the limited linguistic and lexical knowledge they possess.

Some of the listening strategies embedded in the listening activities of the textbook are selective attention, inferencing and extralinguistic inferencing. It should be noted, however, that these strategies were not taught explicitly as each one of them was implemented in each listening exercise differently. For example, the inferencing was implicitly taught under the topic 'Understanding Words around Key Words', an activity from Milestones in English/B1, Unit 5. This activity allows the use of information within the text or context to guess the meanings of unfamiliar language items. Despite the activity's aim to teach students how to use 'inferencing', the textbook does not explicitly mention or discuss this strategy. It also fails to indicate its type or how it can enhance students' listening comprehension. This is not only problematic for the learners, but also for the teachers who had received very little or no in-service training on how to teach listening, and thus, may struggle with identifying the type of listening strategy being addressed. Furthermore, the lack of explicit demonstration of listening strategies in the textbook leads to a situation where both teachers and learners rely solely on the materials provided (such as completing tasks to obtain correct answers), without gaining a genuine understanding of the listening process or acquiring the skills to overcome listening difficulties.

It should be noted, however, in some listening texts (such as those found in textbooks), the vocabulary used is familiar to the learners and, as a result, no special strategies are required to comprehend the language used. This can be achieved by pre-teaching the vocabulary or ensuring that the words used are similar to the ones the learners have encountered before. This could be an explanation of why the textbook 'Milestones in English – A2/B1' did not incorporate guided and structured practice of listening strategies in the context of normal class activities because the level of difficulty of the listening passages does not require implementing strategy instruction into lessons in the first place. The rationale behind this approach may stem from the concern that encountering unfamiliar words could impede learners' comprehension of the text, which would cause frustration, disengagement, and even demotivation. Therefore, it is important to provide learners with listening materials that are at an appropriate level and that do not contain too many unknown words. This allows learners to focus on their listening skills and comprehension of the text without being distracted by unfamiliar vocabulary.

However, it is also important to note that such approach has some limitations. For instance, learners may not have the opportunity to be exposed to new words and, as a result, may not develop their vocabulary knowledge through natural exposure. Additionally, learners may struggle to understand spoken language in real-world situations where they encounter unfamiliar

vocabulary, and this approach does not help students prepare for the real language they will hear outside the classroom. For those reasons, it is recommended to strike a balance between providing familiar language and exposing learners to new vocabulary, as well as equipping students with effective listening strategies to promote and ensure successful listening comprehension.

3.5.2.3 Theoretical Frameworks Underpinning the Intervention: Macro and Micro Levels

Prior to the treatment, an explicit listening strategy intervention was designed based on Zimmerman and Moylan's (2009) three phase cyclical model of self-regulated learning combined with a process-based approach to listening strategies instruction through implementing Vandergrift's (2004) pedagogical cycle of metacognitive strategies (Discussed in Section 2.8.3). Both models are process-based; however, while Zimmerman and Moylan's model focuses on the interaction of strategic behaviour and self-motivation beliefs (forethought phase), self-control and self-observation (performance phase), self-judgement and self-reaction (self-reflection phase) to develop self-regulated behaviours and strategy use in the learner, the Vandergrift's (2004) pedagogical cycle is a task-based model, which focuses on modifying the task design to promote student's use of metacognitive listening strategies through pre-listening, listening and post-listening stages.

a) The Macro Level

On a macro level, Zimmerman and Moylan's model of self-regulated learning, which was based on Bandura's Social Cognitive Theory (1986), was implemented in every intervention session with the experimental group aimed at developing the learners' strategy knowledge and strategy use (See Figure 3.2). Some of the model's aspects presented to students during the intervention were awareness-raising, modelling, task analysis, goal setting, strategic behaviour (forethought phase). For awareness-raising, a YouTube video in L1 was used at the beginning of the intervention, the video was about a lady who spoke Arabic but with a different regional accent that was unfamiliar to the students, the students were then requested to provide the overall interpretation of what they had heard, even though they did not grasp the complete meaning of every word they encountered. The role of the researcher as a teacher was to give the students feedback regarding their listening performance and to explain to them that they can build meaning through top-down processing, which links the received information to background knowledge. It was explained to students that this strategy is referred to as 'inferencing', to use information from the text to guess meaning of unfamiliar linguistic items. Besides, students were directed to avoid translating every individual word from the spoken text in order to derive meaning. They were also told that encountering unfamiliar words is completely acceptable as long as they can understand the main

idea of the passage. Another awareness-raising activity was sharing with students some skilled L2 listeners' statements regarding their utilization of listening strategies (statements were derived from the piloting phase). For example, 'I use skimming and scanning before I listen'. The meaning of that statement was further explained by clarifying what the participant meant when she applied advance organization before the listening process; she read the questions first and highlighted the important key words, then directed her listening accordingly (directed/selective attention). Students were asked later to share their opinions regarding each statement; whether they agree or disagree with it and why. The students showed high levels of engagement with the task and some of them felt that they even share the same issues in their L2 listening comprehension. Moreover, this task was designed to help raise learners' awareness about strategy use and to develop their ability to deal with unfamiliar language by identifying and using strategies they already have in their 'toolkit' for dealing with such situations and become more confident in their ability to comprehend and communicate in different contexts. The aim of the task was to encourage learners to become aware of their own learning process and to help them develop a more effective approach to dealing with unfamiliar language. However, as previously stated, textbooks and teachers may have a tendency to avoid using unfamiliar language in reading and listening materials by pre-teaching everything or selecting materials that are at an appropriate level for the learners. While this approach can be helpful in some contexts, it may not fully prepare learners for real-world situations where they encounter natural spoken forms. Therefore, it is essential to quip L2 listeners with a rich repertoire of listening strategies to help them overcome potential listening issues outside classroom context.

Modelling

Strategy modelling was also one of the aspects presented to students during the intervention. In order to prepare students for the listening activities, the modelling began by the teacher demonstrating to students how to implement listening strategies by answering comprehension questions of a listening passage while verbalizing the listening comprehension process. This stage holds significant importance as it aids students in learning through observational learning where they observe the process of combining bottom-up and top-down processing in listening, along with integrating cognitive and metacognitive listening strategies. Another modelling activity was delivered through implementing observational learning, which is one of the five pillars of Social Cognitive Theory (Bandura, 1986). To maintain the reciprocal interaction between the person, environment and behaviour, observational learning can serve as the stimuli from which learners can witness and observe certain behaviours and then reproduce those behaviours. This can be achieved through 'modelling' these behaviours. SCT suggests that observational learning can improve skill performance by enhancing learners' self-efficacy. Vicarious experience (e.g.,

watching someone else performing the task) is one of the main four sources of self-efficacy. Bandura (1997) stated that observing similar others (e.g., similar L2 learners are people who share the same L1 and have the same level of proficiency) will increase learner's self-efficacy to perform the same task. Moreover, observing effective strategies can help overcome previous failures and maintain self-efficacy (Law & Hall, 2009). To apply this concept in an educational context, a video recording of Layan (an L2 learner of the same age and background as the students) performing and modelling a listening task while verbalizing the listening process was played inside the classroom. During the video, Layan was prompted to elucidate her approach to overcoming listening difficulties and identify the specific strategy she employed while completing a listening task. Layan was assigned an advanced-level listening task to demonstrate to students that a fellow L2 learner of the same age and proficiency level as theirs can accomplish the task successfully. Also, Layan received verbal feedback after each listening comprehension to help her maintain high self-efficacy levels. The students in the class were very interested in Layan's performance commending her adept utilization of listening strategies, and some even described her as 'very smart'. It was also observed that the students displayed high motivation and engagement while watching Layan's performance, expressing a desire for additional recordings showcasing her execution of various L2 listening task types. Such activity can be modified further to make it more communicative and build a realistic communicative situation in the future, even for virtual learners, for example, by asking Layan later to attend the class in person (or online) as a guest speaker for students to interview her. They can prepare interview questions for her in pairs or in groups and then ask her those questions in class. Some of these questions may pertain to her utilization of strategies, the listening difficulties she may have faced, or how she managed to enhance her listening skills.

Task Analysis

During the intervention, task analysis held particular significance for the teacher as it demonstrated the process of completing a listening task by students. Through the integration of task analysis, the teacher can observe students in action to get insights on how they perform in detail. By implementing Willis (1996), which is a framework for running task-based lessons, the listening activities were modified in the textbook to tackle main aspects of a task-based listening. This would also help students own listening goals and ensure that the goals are more specific, measurable, and connected to learning listening, which will eventually help them acquire a sense of agency and choice over their learning process.

b) The Micro Level

On a micro-level of the intervention design, the pedagogical cycle described as: 'metacognitive, process-based approach' (Vandergrift, 2004) was adapted with all the listening tasks from the coursebook to plan tasks to use strategies (See Figure 3.2). This task framework allows students to engage in a sequence of listening metacognitive processes. While the textbook implicitly introduced this metacognitive engagement, the design of each task was rooted in a listening process-based approach. Nevertheless, it was the explicit guidance provided by the teacher at strategic points, along with the guided practice, that emerged as two crucial factors contributing to the enhanced performance of the experimental group when compared to the controlled group. This improvement was particularly evident during the post-test (Time 2) phase of the listening test results (See Section 4.2.1.2). Also, even though the following aspects were embedded in the current listening course provided to students, which are (a) the textbook drew from different authentic content and audio materials, (b) the listening strategies were integrated in every unit's activity. Such activities were designed to help students implement a single strategy in isolation. Moreover, it was not clear how to develop a metacognitive knowledge as this was not explicitly described. Lastly, there was not a proper assessment measure to reflect on student's individual strategy use and development. Therefore, providing students with a principled and systematic way to increase their metacognitive awareness and strategy use was the key to improve their listening skill and enhance their self-efficacy and self-regulated learning. Not to mention that the metacognitive strategy instruction was designed to equip students with as many metacognitive strategies to be orchestrated and employed to complete each stage of the task sequence. To do so, the intervention started by introducing to the students the listening strategies and explaining to them that such strategies can also be applied to their L1 to improve their listening skills, especially with difficult unintelligible listening passages.

The students were presented with a 'List of Listening Strategies' for the purpose of reviewing them individually and providing a detailed explanation of each strategy (See Appendix J). Students were instructed to keep this list and use it as a reference for each listening activity in the future. Interestingly, it was observed that the students were unfamiliar with those listening strategies, and that all of the strategies were novel to them, despite the possibility that they may have instinctively employed them while listening. Later, students were asked to participate in a 'Track your Listening Strategic Plan' activity. In this activity, a Google spreadsheet was shared with the students, which contains their names along with the names of the strategies. Then, students were instructed to complete a listening activity in pairs then tick the strategies they deployed and add any additional comments they would like to share. This activity was very interesting for the students and important because it showed them how to orchestrate different types of strategies to build understanding. At the end of this activity, students were given general remarks on how to

orchestrate more than one strategy to comprehend the aural passage. Students were reminded that each individual possesses unique individual differences, allowing for diverse approaches to listening tasks while still arriving at the correct meaning. At the end of each lesson, the Google spreadsheet was shared with the whole group to discuss the students' overall strategy use. It was observed that none of the students utilized planning and evaluation as metacognitive strategies during their listening activities (especially during weeks 1 and 2). Additionally, it was noted that the majority of students heavily relied on inferencing and selective/directed attention while listening. These findings were of great importance to the researcher as they provided insights into the students' strategy development throughout the intervention process.

Feedback

Scaffolding students' use of listening strategies and providing feedback from teacher/peers were two essential elements in this intervention. For scaffolding, the 'Guide for Listening' (adapted from Vandergrift & Goh, 2012) (See Appendix K) was distributed to students. This guide helps students list their listening predictions. After writing down their predictions, students can discuss their predictions with a partner before they start the first listening. After that, they listen once more to confirm their comprehension and address any disparities between their understanding and that of their partners. Finally, they listen for the third time after having a group discussion and read the script while listening for third verification stage. The guide also allows students to write down their reflection (evaluation) of their listening performance and to set goals for the next listening task. Feedback was incorporated at various points during the listening instruction. Upon finishing the task, students engaged in self-evaluation, assessed their strategy utilization, reflected on their overall performance, and established goals for subsequent listening tasks. The teacher then provided feedback, primarily in the form of verbal persuasion, particularly for less proficient listeners as part of a feedback loop. Additionally, more detailed feedback was given upon student request. The teacher feedback loop is essential for effective learning because it provides learners with an opportunity to reflect on their performance, receive guidance from their teachers, and make changes to their learning strategies. Feedback helps learners to identify areas where they need improvement and understand their strengths. Throughout the intervention, after learners have reflected on and evaluated their strategy use, the teacher feedback loop was added to the learning process by: (a) providing clear learning objectives and expectations, (b) encouraging self-reflection, and (c) encouraging response to feedback by setting new goals or seeking additional support. This continuous feedback loop was also essential to support the self-regulated learning cycle. Giving individual feedback to learners is considered a critical component of the intervention's effectiveness and success (Macaro & Erler, 2008). In the Foreign Language Education: Unlocking Reading (FLEUR) study conducted by Woore et al., (2018),

a study aimed at exploring two approaches to teaching reading to beginner learners of French in Year 7 (phonics instruction and reading strategy instruction), the learners were guided to set themselves goals related to their strategy use, however, rather than receiving individualized feedback from the teacher on their strategy use afterwards (as the case in this study), they were asked to give each other feedback on their progress. This was considered a limitation to their study considering its attempt to separate and distinguish the impacts of the reading strategy and phonics instruction, as carried out in the study conducted by Macaro and Erler (2008).

Providing an Explanation of Key Concepts

At the beginning of the intervention, and after introducing the list of strategies, students were briefed on the rationale behind the strategy instruction and its intended purpose. Besides, concepts such as 'metacognition,' 'self-efficacy,' and 'self-regulation' were elucidated, and their connections to the development of L2 listening skills were clarified. The relationship between listening strategies and self-efficacy was also explained (Why are we learning about listening strategies?). Being explicit about the purpose of teaching these strategies can contribute to enhancing students' self-efficacy and consequently their motivation. Throughout the intervention, the aims and purpose of each listening task were emphasized. The importance of these activities and how they are linked to real-life situations were further demonstrated (e.g., retelling information and listening for specific information).

Whole-Class Discussions

Classroom discussion was one of the practices done regularly in every lecture. During those discussions, students had the chance to share their views on their personal strategy use. The main role of the teacher was to promote those whole group discussions by raising questions related to strategy use, how to improve one's listening, share the difficulties they have faced while deploying listening strategies and try to find out ways to overcome those difficulties. One of the class discussions was facilitated at the beginning of session 9 using the 'think-pair-share' to elicit answers on strategy use and goal-setting for listening development. Students were given two minutes of think time and two minutes discussion with a partner before opening up the class to discussion. They were also asked some 'follow-up' questions related to listening strategies and goal-setting (e.g., 'Why? Do you agree? Can you elaborate? Tell me more. Can you give an example?'). This introduction to the topic aimed at stimulating interest and encouraging thinking as well as helping students learn from one another, which adds to the usefulness of implementing pair/group discussions in the class.

Strategies for Listening in Exam Settings

One of the features added to the listening strategies, which was not listed on the metacognitive and cognitive listening comprehension strategies by Vandergrift (1997), was teaching strategies for listening during exams. These strategies hold particular significance for students as they align with their primary listening objective: attaining high scores in mid-term and final exams. However, students were explicitly informed that the application of other listening strategies during exams is also applicable and that acquiring additional exam-specific strategies could potentially enhance their performance, particularly when faced with time constraints. For example, advance organization (carefully reading the instructions and exam questions) is a fundamental strategy for L2 listening exams. Underlining key words in the listening questions to help predict the content is also key to get the right answer (prediction and planning). For more advanced students, they were instructed to think about other words for key words as they may not hear the exact same words while they listen (elaboration). The focus of the students was captured on one very common question technique that is mostly found in listening exam, known as distractors. Distractors are often used to mislead the students, e.g., the speaker says one thing at first, then reverse the answer to mean something else. Additionally, the speaker may say all the options in one question with only slight difference, so students need to focus on detailed information (selective/directed attention). Note-taking is one of the most important strategies during exams (especially with long passages). It was explained to students that listening questions are mostly written to be answered in order; however, once the recording is played, there is no way to go back and forth. So, in order not to miss any piece of important information, students should learn how to take notes while listening. Some of the note-taking tips the teacher, as an EFL learner herself, personally apply when listening during exams, were also shared with the students. Those were:

- Do not write down everything you hear.
- Listen and write key words and the information around key words, if required.
- Do not write full sentences (phrases or even words are just enough).
- Use abbreviations. For example, the word international can be abbreviated to intr.
- Pay attention to numbers and names.
- Listen to the intonation and pauses.
- Do not translate every word in your mind (avoid mental translation). It is okay not to know the meaning of some words. You can use compensatory strategies (e.g., inferencing and understanding the gist).
- Verify your notes and answers during the second listening (verification stage).
- If you encounter difficulty with a particular question, it is advisable to swiftly proceed to the next one and refrain from becoming stressed (self-management).

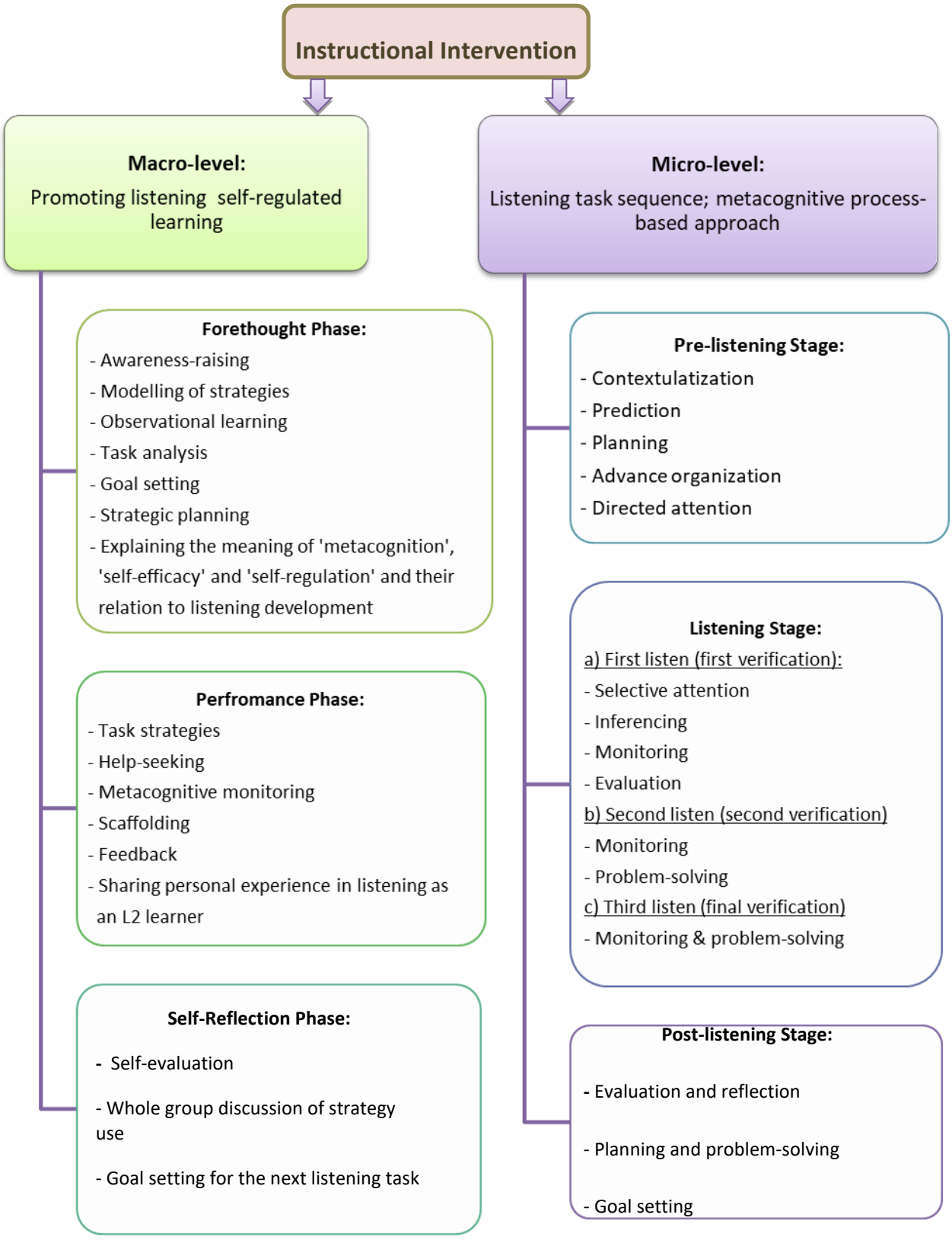

Figure 3.2 Integrated Models of the Intervention (Author)

3.6 Data Generation

3.6.1 Pilot Study Phase

The piloting phase was an essential step to ensure the appropriateness of the data collection instruments for the target population. Pilot testing of the questionnaires was conducted with 6 of the target population (other than those who participated in the experiment but share the same educational and proficiency level as the target population). Additionally, the research instruments (questionnaires, interview questions, and consent forms) were content validated by two EFL professors and three EFL lecturers to decide on their face validity and their appropriateness for the participants' proficiency level. The piloting of each measurement instrument was administered online, in adherence to COVID-19 preventive measures, and is discussed in detail in each instrument's section.

3.6.1.1 Piloting of Listening Test and Questionnaires

Pilot testing was conducted with 6 students (other than those who participated in the experiment but share the same educational and proficiency levels as the target population) to check for internal consistency. The internal consistency (Cronbach's alpha) for the IELTS listening test (22-MCQ items) is (Cronbach's $\alpha = 0.92$). The remaining 3 listen-and-write questions were not tested for internal consistency; however, they were tested for their clarity and appropriateness. The MALQ (21-item scale) demonstrated an excellent internal reliability (Cronbach's $\alpha = 0.96$). The ELSQ (19-item scale) demonstrated an acceptable internal consistency of (Cronbach's $\alpha = 0.73$). The ELCMS (7-item scale) demonstrated a good internal consistency of (Cronbach's $\alpha = 0.86$). Finally, the SLSQ (12-items) also demonstrated a good internal consistency of (Cronbach's $\alpha = 0.80$). In ELSQ and ELCMS (the listening motivation and self-efficacy questionnaires), the negative statements were reversed coded so that higher scores indicated higher motivation and higher self-efficacy (See Table 3.5).

Table 3.5 Instrument Reliability

Instruments	Cronbach's Alpha	Number of Items
IELTS Listening Test	.92	29
ELSQ (Self-Efficacy Scale)	.73	19
ELCMS (Motivation Scale)	.86	7

Instruments	Cronbach's Alpha	Number of Items
MALQ (Metacognitive Awareness Scale)	.96	21
SLSQ (Self-Regulation Scale)	.80	12

3.6.1.2 Piloting of Interview Instruments

During the piloting phase, two participants were purposefully selected for piloting the stimulated recalls and semi-structured interview. Those two participants were not in the main study. After completing the last Long Listening Comprehension (LLC) test, each participant was immediately asked to participate in a stimulated recall session to reflect on her listening performance. The first participant (P1) was a proficient L2 listener. This was reflected in all her correct answers to the listening comprehension tests. When she was asked about her educational background, it was found that she was a multilingual speaker; she spoke Arabic, English, Urdu, Hindi fluently and has a moderate command of Turkish language. During the listening process, she skilfully orchestrated more than one listening strategy at the same time starting with reading the questions and options first (advance organization/skimming), then predicting the content of the passage (prediction). She also grasped the main idea of the passage (top-down strategy) while focusing on some details (selective attention/monitoring/problem-solving). At the end of the listening, she wrote down key notes (notetaking) and evaluated her overall listening performance (self-evaluation/reflection). Interestingly, it was found that P1 was unfamiliar with any of the listening strategies or the metacognitive knowledge she demonstrated. She reported that her listening process occurs automatically.

The second participant (P2) is a less proficient L2 listener. She made few errors during the first listening attempt, but she comprehended the general idea of the passage by connecting different ideas together to construct the general meaning. Her errors were related to the detailed information (especially numbers), and she explained that she was unable to concentrate on all the details from the first attempt, and that she had to listen twice to verify her answers. She applied some metacognitive strategies, such as advance organization, problem-solving and self-evaluation; however, she relied too much on mental translation, which is an ineffective listening strategy (Vandergrift, 1998). However, both participants agreed on the usefulness of teaching listening strategies to improve their listening performance and to enhance their self-confidence in L2 listening comprehension.

3.6.2 Main Study Phase

The listening test was administered at the beginning (Time 1) and again at the end of the study (Time 2), along with the two questionnaires (during weeks 2 and 3) to collect data from both groups. In addition, six students from the experimental group were randomly selected for participation in a stimulated recall and semi-structured interviews. The stimulated recall sessions were conducted right after each listening test to keep a close time span between the task and the self-report session.

The students in the experimental group received two hours of metacognitive strategy listening instruction once per week, over the course of a 13-week semester. The students in the control group attended the regular listening lessons but did not receive explicit metacognitive strategy instruction. Thus, while both groups did exactly the same listening activities, only the experimental group had awareness raising and strategy-based instruction integrated in their lessons.

The experimental group treatment began by introducing the concepts of 'metacognition' and 'self-regulation' to the students. By focusing on and raising awareness of the conceptual level (i.e., talking specifically about metacognition and self-regulation and their vital roles in improving listening outcomes), students will be more capable of understanding the link between self-regulated listening strategies and listening outcomes, which in turn, will enhance their metacognitive awareness and self-regulated learning (Zimmerman & Martinez-Pons, 1990). An explanation of those concepts was then accompanied by a discussion on how to implement them in L2 listening comprehension. Strategy lists (adapted from Graham & Macaro, 2008) were distributed to the students to remind them of the possible listening strategies that can be deployed with different types of listening passages. Modelling and awareness raising of listening strategies were also implemented at the beginning of the intervention, in addition to raising students' awareness of thought groups, speech segmentation patterns and accurate inferencing activities.

It should be noted that all the listening activities were taken from the student's textbook and that no additional listening sources were included in this treatment, expect for external supplementary resource (video recordings) used for raising awareness about strategy use and observational learning. Students were also asked to fill out a Listening Guide sheet during the listening activity on a weekly basis (see Appendix K). The proposed pedagogical stages were adopted each week with the listening activities, as explained in more detail in Appendix M. The listening strategies taught during the treatment period included a combination of cognitive, metacognitive and socio-affective strategies (e.g., contextualisation, planning/predicting, advance organisation, problem-

solving, evaluation (metacognitive), inferencing, monitoring and cooperation (socio-affective).

At the end of each weekly listening session, the students were asked to reflect on their strategy use by ticking the strategies they deployed on their strategy list and set strategic goals for the next listening activity. Also, the students received continuous feedback from the teacher on their individual and group listening performance. For example, after discussing their strategy use in pairs (or groups), the teacher would give verbal feedback when needed or refer to other alternatives to solve the listening issues encountered by students.

During weeks 12 and 13, data were collected at post-test (Time 2) including administering the Listening Comprehension Test and questionnaires for both groups, and interviews with the experimental group only.

It is important to mention that during the course of the intervention, the teacher kept track of experimental group's self-regulatory behaviours in classroom (e.g., their strategy use, and self-control when performing listening tasks) in a teacher's diary. Moreover, experimental group's listening documents (i.e., in-class activity worksheets and handouts) were also examined to gain more information about students' performance at each listening activity.

3.6.3 Issues Associated with Hybrid Instruction

The unprecedented transition to online teaching and learning had resulted in some issues faced by students and teacher during the intervention. Some of those issues were related to the IT and wireless networking infrastructures, such as low-speed connectivity and difficulties accessing the educational platforms online. Another issue faced by the teacher was switching between two modes while teaching: face-to-face in a traditional classroom and online learning from a remote location. The switch inside the classroom was difficult because it forced the teacher to give the same attention to the students in-class and to those who attended online simultaneously. This caused some major distractions to the teacher, who tried to engage the students in-class with the listening activities while also asking the ones online to participate and share their answers either by typing in the chatting box on Cisco Webex Meetings or by using the microphone. The additional time spent to prepare all instructional materials in a digital format was also challenging. Converting the listening strategy-based instruction from face-to-face to remote teaching and learning was even more challenging especially during collaborative work. Although the collaboration took place in breakout rooms online, it was problematic for the teacher to monitor and observe students' performance in those activities, which led some students to spend too much time off-task. Moreover, keeping the online students motivated and engaged was the one of major challenges for the teacher compared to face-to-face teaching. Due to Saudi Arabian

cultural traditions and norms, cameras are always turned off during videoconferencing, which caused students to feel less socially connected to each other. Additionally, many students were reluctant to speak on the microphone and preferred to type in the chatting box (avoidance strategy). However, by giving students the choice and allowing them to choose the materials and resources they will utilize, the teachers can still improve the students' motivation and engagement levels. For example, during the semi-structured interviews, one of the participants said that she preferred to listen to songs and read their lyrics more than listening to recordings from the coursebook. Another participant suggested listening to and watching short clips from movies or TV series to keep her more motivated to learn.

Another issue faced by some online students is the distracting environment around them or the use of mobile devices to attend the hybrid lesson, which can be interrupted by notifications from various apps. To minimise the negative impact of online learning, the listening task was broken up into smaller pieces/stages to get students' attention. Also, students who attended hybrid classes using mobile phones were advised to turn off the apps' notifications to avoid any distractions during the lesson.

As a teacher of this course, this sudden transition to hybrid learning in the beginning of the semester (week 3), was unexpected to me. I suffered from lack of skills and was less confident in digital literacy. For instance, I have never taught a class while both using a microphone and wearing a face mask in a face-to-face setting simultaneously. I had trouble with delivering the course content in a clear and comprehensible way especially to online learners. One way that helped me overcome those obstacles was to assess my teaching performance in advance. I recorded my teaching on microphone while wearing the face mask (since it was obligatory not to take it off even inside the classroom) and tried to evaluate my speech clarity and volume as well as the pronunciation of words. This process helped me to tackle the speech unintelligibility and to adjust my breaths to be deeper to help support my voice and deliver clearer messages.

3.6.4 Implications of the Quasi-Experimental Design

The pre-test and post-test design allows the assessment of learners' attitudes and perceptions regarding strategy use and allows measuring other variables (e.g., affective variables, such as perceived self-efficacy and motivation). It is assumed that an increase in scoring during the post-test phase could be an indication of better knowledge and attitude as a consequence of an intervention carried out after the pre-test phase (Stratton, 2019). Moreover, the testing of dependent variables before and after the intervention adds more directionality to the research. In teaching a second language, such design is more convenient as it provides teachers and language

educators with appropriate tools for immediate assessment of language proficiency levels, strategies, and cognitive processes. Also, it allows for statistical analysis of data, which can be economical to elicit and assess information from large number of students in a short period of time (Mackey & Gass, 2021). However, there are few limitations that have been associated with administering questionnaires to collect data. First, the testing might lead to bias in the study, especially if the questionnaire items are the same in the pre- and post-test (Stratton, 2019). When the participants take the pre-test questionnaire, they may become more familiar with the terminology which leads to higher scores. In the case of this study, it was observed that the students were bored with repetitive and long questionnaire items as the total number of students who completed the post-test (*N*= 124) had dropped compared to those who completed the pre-test questionnaires (*N*= 145). Another limitation is that questionnaires may lack accuracy in depicting a whole picture of the complexities of the learner-internal processes. Finally, repeated testing, in particular, and applying elicitation device, in general, may cause the data to be an artifact of that particular device. For example, it may lead the participants to score in a certain way, which does not correspond to how they would respond in real life situations or if they are worded to elicit a desired response (Mackey & Gass, 2021). For those reasons, qualitative data instrumentation was applied to support some of the shortcomings of the quantitative method in this study.

3.6.5 Role of the Researcher

In general, listening strategy instruction typically requires more expertise on the part of teachers, as it involves teaching the students specific ways to approach a task or a problem, which requires a deep understanding of both the task or problem and the strategies that are most effective for solving it (Conti & Smith, 2019). Teachers who use strategy instruction typically have a solid understanding of the subject matter they are teaching and have a good sense of the types of difficulties students may encounter. They are also familiar with a range of strategies that can be used to help students overcome these difficulties. In addition, they need to be skilled in presenting this information in a clear and accessible way, so that students can understand and apply the strategies they are being taught.

However, the pedagogic intervention of this study was carried out by the researcher for a variety of reasons. The majority of the teachers in this context had never received in-service training previously. They entered the teaching profession immediately after they completed their education at a university. Although those language teachers had good teaching experience, following the exact pedagogical stages repeatedly with every listening activity was not straightforward for them. Moreover, the teacher modelling and scaffolding required prior training

or at least observing another teacher demonstrating them, which was also lacking in this context. Due to those reasons, the researcher conducted a process of integrated instruction in this study to ensure the intervention was delivered uniformly to the experimental groups. This was done to also ensure that students were taught a sequential repertoire of strategies that would help them develop their listening skills and foster self-regulated learning in identical fashion. Additionally, in education research, efficacy and effectiveness trials are two types of research designs commonly used to evaluate the impact of educational interventions or programs. Efficacy trials are typically conducted in highly controlled settings to examine the effectiveness of an intervention under ideal conditions (i.e., researcher acting as teacher) (Flay et al., 2005). In efficacy trials, researchers attempt to control all variables, such as the selection of participants, the intervention itself, and the measurement of outcomes, to ensure that the results obtained are due to the intervention rather than other factors. Effectiveness trials, on the other hand, are conducted in real-world settings to determine the extent to which the intervention works under more realistic conditions (Flay et al., 2005). Effectiveness trials are designed to evaluate the impact of the intervention on a diverse population of participants, including those who may not meet the strict inclusion criteria used in efficacy trials. As for this study, effectiveness trial can be conducted in the future to investigate whether it can be scaled to real life (other teachers). Thus, while efficacy trials are designed to establish the internal validity of an intervention, effectiveness trials are designed to establish its external validity. Combining both types of trials can provide a more comprehensive evaluation of the intervention's potential to improve student L2 listening outcomes.

3.7 Analyses

The study adopts a mixed methods data analysis by applying both quantitative and qualitative analytical techniques. The data obtained from the instruments were coded for statistical treatment. The Statistical Package for the Social Sciences (SPSS, version 28, 2021) and Jamovi (version 2.3.21, 2021) were used for statistical analyses. The qualitative data were transferred to NVivo (released in September 2022) and coded using a base scheme adapted from Yeldham's (2019) framework of longitudinal listening strategy development. This chapter provides an outline of the process of data analysis and coding that will be used to extract meaningful insights from the collected data. A summary of the data analysis process in the study is presented in Appendix O. Appendix P and Appendix Q demonstrate the main variables and main constructs/sub-constructs to be included in the analyses of this study.

3.7.1 Reliability and Descriptive Analysis

Descriptive and reliability statistics are provided in Table 3.6. For descriptive statistics, means, standard deviations, skewness and kurtosis are presented in the table for both control and experimental groups across two time points. To check the reliability of the quantitative instruments, *Cronbach's alpha* (*α*) is used to measure the reliability at Time 1 and Time 2.

For all the measures, the means were computed to get the mean composite scores for each variable. Composite scoring allows to combine the items that represent a variable to create a score that captures all the items (Rickards et al., 2012). For self-efficacy, two questionnaires; the listening self-efficacy scale and source of self-efficacy information scale, were combined to represent the self-efficacy for L2 listening variable.

There are observable differences in the mean composite values of all measures (self-efficacy, self-regulation and motivation) across Time 1 and Time 2. First, the self-efficacy for L2 listening increased from Time 1 (*M* = 3.29, *SD* = 0.67) to Time 2 (*M* = 3.98, *SD* = 0.47) for the experimental group. The L2 listening motivation also increased from Time 1 (*M* = 4.50, *SD* = 1.07) to Time 2 (*M* = 4.81, *SD* = 0.77) for the experimental group. Further, the use of self-regulated listening strategies increased from Time 1 (*M* = 4.46, *SD* = 0.61) to Time 2 (*M* = 4.95, *SD* = 0.52) for the experimental group. The listening metacognitive awareness also increased from Time 1 (*M* = 4.14, *SD* = 0.40) to Time 2 (*M* = 4.46, *SD* = 0.39) for the experimental group. The mean composite values also revealed that the mean composite values of the experimental group, on average, is greater than the mean composite values of the control group across pre- and post-intervention. Overall, the skewness and kurtosis fall between normal and acceptable ranges, i.e., ±2 for skewness and kurtosis (George & Mallery, 2010). The data are normally distributed as indicated by the approximately small range of skewness and kurtosis values (Cohen et al., 2018).

Table 3.6 Descriptive and reliability statistics Control

Measure		**Mean**	**SD**	**Skewness**	**Kurtosis**	***Cronbach's α***
Time 1	LCT[1]: mean composite	0.73	0.18	-0.84	-0.24	0.71

[1] **LCT:** Listening Comprehension Test

	ELSS[2]: mean composite	3.45	0.63	-0.47	-0.22	0.88
	ELCMS[3]: mean composite	5.25	0.51	-0.69	0.13	0.73
	SLSQ[4]: mean composite	4.53	0.57	-0.12	0.27	0.71
	MALQ[5]: mean composite	4.18	0.52	-0.24	0.31	0.74

Experimental

Measure		**Mean**	**SD**	**Skewness**	**Kurtosis**	***Cronbach's α***
Time 1	LCT: mean composite	0.80	0.19	-0.81	-0.58	0.73
	ELSS: mean composite	3.37	0.67	0.18	-0.59	0.88
	ELCMS: mean composite	4.50	1.07	-0.98	0.81	0.84
	SLSQ: mean composite	4.46	0.61	-0.18	0.03	0.73
	MALQ: mean composite	4.14	0.40	-0.24	0.47	0.74

Control

Measure		**Mean**	**SD**	**Skewness**	**Kurtosis**	***Cronbach's α***
Time 2	LCT: mean composite	0.71	0.20	-0.19	-1.08	0.72
	ELSS: mean composite	3.57	0.62	-0.26	-1.10	0.90
	ELCMS: mean composite	4.79	0.73	-0.70	0.32	0.78
	SLSQ: mean composite	4.48	0.74	-0.92	1.73	0.85
	MALQ: mean composite	4.30	0.51	0.59	1.27	0.77

[2] **ELSS:** English Listening Self-Efficacy Scale

[3] **ELCMS:** English Listening Comprehension Motivation Scale

[4] **SLSQ:** Self-regulated Listening Strategy Questionnaire

[5] **MALQ:** Metacognitive Awareness Listening Questionnaire

Experimental

Measure		Mean	SD	Skewness	Kurtosis	*Cronbach's α*
Time 2	LCT: mean composite	0.85	0.17	-1.19	1.15	0.76
	ELSS: mean composite	3.98	0.47	-0.66	0.62	0.82
	ELCMS: mean composite	4.81	0.77	-0.83	0.75	0.76
	SLSQ: mean composite	4.95	0.52	-0.26	-0.34	0.76
	MALQ: mean composite	4.46	0.39	-0.23	-0.02	0.71

3.7.2 Quantitative Analyses

The normality of the data was assessed by checking the range of the skewness and kurtosis (they both fall between normal ranges ±2) in conjunction with histograms, P-P, and Normal Q-Q Plots. Besides, the central limit theorem states that as the sample size increases, the sampling distribution of the sample means will approach normality (especially if N ≥ 30). This means that a large sample size (N > 100), would produce a normal distribution of the data (Field, 2018). Although the Shapiro-Wilk values were non-significant (p > .05) (i.e., the distribution of the sample is probably normal) for the dependent variables on both occasions, Shapiro-Wilk test is recommended with small sample size (< 50 participants) because with larger sample size, this test would present data as statistically significant (i.e., not normally distributed).

Even though normality is assumed based on sample size, graphical methods, and values of skewness and kurtosis, the issue of using parametric tests, such as ANOVA and Pearson correlations, with ordinal data is still controversial. Some experts: however, argued that if two conditions are fulfilled: (a) acceptable sample size (at least 5-10), and (b) the data are normally (or nearly normally) distributed, it is possible to apply parametric tests with Likert scale ordinal data (Jamieson, 2004). Other experts went further and assert that parametric tests not only can be used with ordinal data, but they are more robust than nonparametric tests when analysing Likert scale data even if statistical assumptions are violated (Norman, 2010). For those reasons, the use of parametric tests was found acceptable to run the analyses for this study.

3.7.3 Analyses to Address Research Question 1 – Listening Strategy Instruction, Self-Efficacy for L2 Listening, Use of Self-Regulation Strategies, L2 Listening Motivation and L2 Listening Outcomes

3.7.3.1 Quantitative Analysis

The first research question states, "To what extent do listening strategy-based instruction and feedback on listening strategy use affect self-efficacy for L2 listening, use of self-regulation strategies, L2 listening motivation and L2 listening outcomes over the treatment period?". To answer this question and test its hypotheses, a number of parametric and non-parametric tests were performed to explore the effect of the intervention on the dependent variables (self-efficacy, self-regulation, motivation and listening outcomes). These four dependent variables will be treated individually. First, a one-way analysis of variance (ANOVA) will be carried out to check for any possible pre-existing differences between the control and experiment groups. Analysis of variance techniques (ANOVAs) can be used to compare the variances between two or more groups across time points (Pallant, 2020). Next, repeated measures ANOVA tests will be performed to measure the effect of the intervention on each dependent variable. Repeated measures ANOVA is a statistical method used to test the same group on more than one occasion to compare means (Pallant, 2020). The test will be used between subject variables: groups, and within subject variables: occasions. Finally, a post-treatment one-way ANOVA will be applied to compare the means of the two groups and to assess for any statistical differences followed by a post hoc analysis using Wilcoxon signed-rank test to compare the results of selected individual listening strategies. The reason behind choosing repeated measures ANOVA is to test for differences in means between the different conditions, while taking into account the fact that the same individuals are being measured; to determine whether there is a significant interaction between time and treatment (condition) to assess the effect of listening strategy instruction on each dependent variable. Another reason for choosing One-way ANOVA instead of Independent-samples t-test is to obtain the same effect size measurement as RM ANOVA's, which is (η^2_p) Partial Eta Squared instead of Cohen's d (of t-test). Lastly, when running both tests (ANOVA and t-test), the results came out the same, which assumes that there is nothing to distinguish between the two tests since the squared statistic of the t-test is the F-statistic of the ANOVA ($t^2 = F$) when ANOVA is applied to just two groups (Allen, 2008).

3.7.3.2 Qualitative Analysis

Data from participant stimulated-recall protocols on Long Listening Comprehension (LLC) test responses were recorded and transcribed to be analysed. Six participants were randomly chosen from the experimental group in order to carry out the stimulated-recall sessions and to compare

their answers before and after the intervention. Such data will add deeper insights into the development of metacognitive awareness and listening strategy use over the duration of the study. Each participant was given clear instructions verbally and in written format online (via Cisco Webex Meetings platform) taking into account the need to use L1 in order to explain the procedure. Each participant was also given the chance to practice listening to an audio track (other than the one used in the session) to check how she can pause and resume the track while listening. They were also given two minutes to read the listening questions before they start listening. Finally, each participant was asked to type her answers into the chatting box.

To analyse the stimulated-recall data, qualitative content analysis was adopted at which frequency counts of strategy use categories were integrated into a text matrix. The coding frequencies of the participants from the experimental group were subdivided between two groups (pre- and post-tests). This quantification method would allow for group's comparison by integrating the frequencies of strategy use before and after the intervention. Presenting the data quantitatively allows to focus on the categories, not cases (Schreier, 2012). It also allows to identify the most prominent listening strategies learners deploy while listening. The identified listening strategies from the stimulated recall data will be applied to triangulate the data collected from strategy use questionnaires to develop a comprehensive understanding of the strategy use and to address research question 1. Moreover, it allows to compare the findings with other studies on strategy use to find points of agreements and differences (e.g., Smith, 2020; Vandergrift & Tafaghodtari, 2010). The stimulated-recall data will also be analysed qualitatively to trace the participants listening strategy use (manner) before and after the treatment (See Section 4.2.2.).

It should be noted that the audio track used in stimulated recall session (Time 2) was more advanced and contained more technical vocabularies than the one applied during Time 1. Also, the speech pace was faster than the one used in Time 1. The reason for choosing a higher-level audio recording (B2 Upper-Intermediate vs. A2 Elementary) is to explore the types of listening strategies participants would employ while listening to a more challenging and difficult speech.

3.7.3.3 Mixed-Methods Analysis

In order to gain a comprehensive understanding of listeners' self-regulatory strategy use, a mixed-methods analysis was applied to corroborate the findings from the qualitative with the quantitative analysis through triangulating the data obtained from different methods (Dörnyei, 2007). The triangulation design (Convergence Model) (See Figure 3.3) by Creswell, et al., (2003) was chosen because it facilitates the compare-and-contrast process of the quantitative and qualitative results. This design is also referred to as 'concurrent triangulation design' because it

involves concurrent but separate collection and analysis of the data where the findings are integrated in the final interpretation. In this study, self-regulation strategy use was measured quantitatively through questionnaires, and qualitatively through stimulated-recall interviews. Different results were converged, through compare-and-contrast, during the interpretation phase. It should be noted; however, that different sample sizes will be taken into consideration when converging the two data sets.

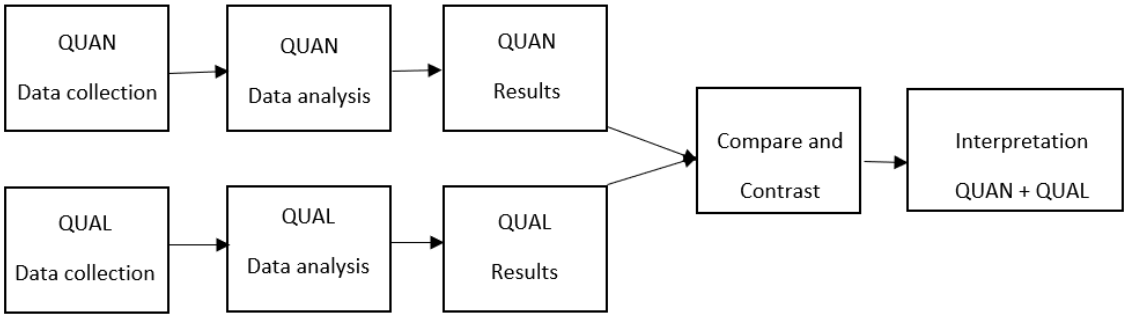

Figure 3.3 Triangulation Design: Convergence Model (Adapted from Creswell, Plano Clark, et al., 2003)

3.7.3.4 Moderating, Extraneous and Participant Variables

Test scores from English language proficiency tests were obtained from Mid-term and Final exams to compare the participants' L2 proficiency levels in other language domains (grammar, vocabulary and reading comprehension). Language proficiency can be a moderating variable that affects the relationship between dependent and independent variables (Fred & Perry, 2005). Therefore, it is important to examine this variable to help with (a) understanding the correlational or causal relationships between variables, and (b) to judge the external validity by identifying the limitations of such relationships.

Extraneous variables are the variables that may potentially affect the outcome of the study, which have not been investigated. Participant variables, type of extraneous variable, are any characteristic of a participant's background that may influence the study outcomes (Bhandari, 2022). Demographic information of the participants was collected by using a questionnaire probing into their age, English listening proficiency, length of learning English, exposure to English language. The questionnaire was administered at the beginning of the intervention (Time 1). Random assignment was used to ensure placing the participants into control and experimental groups randomly in order to strengthen internal validity. However, one issue with random assignment in this study is that it could end up with all higher proficiency students in one group. This issue was addressed through utilising pre-test (Time 1) measures to assess the listening proficiency levels of participants as well as individual/participant variables before running the

intervention. In this study, ensuring that the two groups were comparable in terms of proficiency level was a challenge due to the limitations set by the English Language Centre. While random assignment was used to assign participants to the experimental and control groups, it was not possible to use a matching procedure to pair participants with similar proficiency levels. This could potentially lead to a situation where one group has a significantly higher proficiency level than the other, which could in turn skew the results. Unfortunately, the English Language Centre did not allow for already assigned students to be paired with different groups, making it difficult to address this issue. Despite this limitation, efforts were made to ensure that the two groups were as comparable as possible in terms of proficiency level through the use of pre-tests and other measures. Furthermore, participants were selected from both the Administrative and Scientific streams in equal proportions, with each group having an equal number of participants from each stream.

3.7.4 Analysis to Address Research Question 2 – Relationships between Self-Efficacy for L2 Listening, Self-Regulation and L2 Listening Motivation

The second research question "What are the relationships between self-efficacy for L2 listening, self-regulation and L2 listening motivation at all test times?" will be examined by conducting Spearman's correlation analyses to explore the relationships between self-efficacy, self-regulation, and motivation for L2 listening. Conducting multiple correlation measures will help to explore the degree of association between three or more variables simultaneously. However, correlation does not imply causality (Cohen et al., 2018). The Spearman's rank-order correlation calculates a coefficient, r_s (rho), which indicates the strength of the relationship or association between two continuous or ordinal variables (Field, 2018). The reason for choosing Spearman's correlation is due to the non-linear relationships of some of the variables. The visual inspection of the scatterplot graphs shows that some variables have monotonic rather than linear relationships.

3.7.5 Analysis to Address Research Question 3 – Which Variable (Self-Regulation, L2 Motivation) Predict Self-Efficacy for L2 Listening?

To further evaluate the relationships between the variables and to help answer research question 3: "Which, if any, of the variables (self-regulation, L2 motivation, metacognitive awareness) predict L2 self-efficacy for L2 listening?", backward stepwise regression analysis will be conducted using SPSS (v28, 2021). Generally, multiple regression ensures the overall fit of the analytic model (variance explained) with the model of reality (Thompson, 2006). This means that inferences can

be drawn (e.g., how changes in an outcome could be multiply caused) to investigate the reality that we believe exists.

Stepwise multiple linear regression is a statistical analysis used to create a model by adding or removing predictor variables incrementally and testing for statistical significance of each independent variable (Thompson, 2006). The reason behind choosing stepwise multiple linear regression is because it allows to determine which of the independent variables (self-regulation, metacognitive awareness, and motivation) has a statistically significant effect on the dependent variable (self-efficacy). To run the analysis, the values of the variables (the composite scores of each questionnaire) were aggregated to create useful summary of the vast amounts of data. The backward elimination method will be applied (starting with a full model containing all the variables and removing the least significant variables one at a time until the threshold (stopping rule) is met. The reason for choosing the backward method is to avoid suppressor effects, which refers to reducing the significant effect of two variables due to the influence of a third variable (Field, 2018). The final model was determined by setting the covariate p values to < 0.05 along with the lowest Akaike information criterion (AIC) to decide on the best fit for each statistical model (Akaike, 1974).

3.7.6 Qualitative Analyses

3.7.6.1 Analysis to Address Research Question 4 – Students' Self-Regulatory Behaviours during the Intervention

To investigate research question 4 concerning "What self-regulatory behaviours did the learners employ during the L2 listening strategy-based instruction?", two data instruments were used to collect data regarding students' self-regulatory behaviours throughout the intervention. The first instrument is the teacher's diary. Teacher's diary is an introspective tool used to record observations of learning and teaching experiences (Nunan & Swan, 1992). In this study, teacher's diary will provide deep insights into students' engagement in the listening tasks through observing their behaviours and expressions while performing listening activities. The second instrument is the listening documents. Listening documents are in-class listening worksheets and handouts (e.g., Guide for Listening handout and Listening Self-Evaluation form, and collected worksheets from pair-work listening activities). These documents will provide information on students' internal processes and how they attempted to monitor and solve problems while carrying out listening tasks.

In order to analyse this question, two qualitative methods were applied. First, similar to the qualitative content analysis process adopted in Research Question 1 (Section 3.7.3.2), the

frequencies of reoccurred self-regulatory strategies during the intervention were counted and quantified in order to create a frequency table for qualitative data to present them visually and to allow comparison of frequencies in the categories.

The initial coding scheme to be implemented in the analysis process was the same as the final coding scheme for coding listening strategies applied in Section 4.2.2.1, Table 4.8.

Second, different self-regulatory behaviours were analysed qualitatively following Bingham and Witkowsky's (2021) deductive and inductive approach to qualitative data analysis (See Figure 3.4). The reason for choosing this type of analysis, in addition to the frequency counts, stems from the significance of investigating how listening strategies are employed in terms of approach and effectiveness (manner/quality), rather than solely concentrating on the quantity or number of strategies employed by a learner (Dörnyei, 2003; Dörnyei & Dewaele, 2022; Graham & Macaro, 2008; Graham & Santos, 2015; Macaro, 2006).

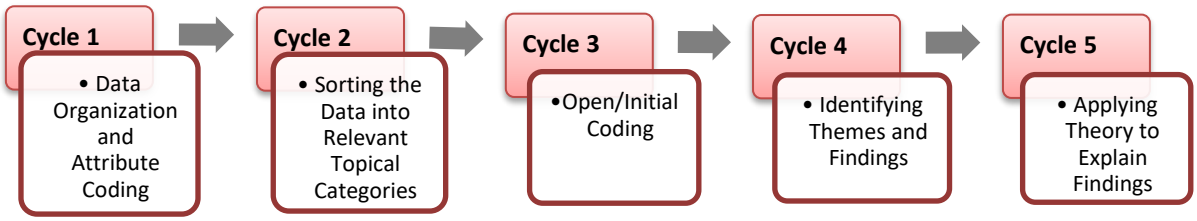

Figure 3.4 Five cycles, encompassing both deductive and inductive processes (Adapted from Bingham and Witkowsky (2021)

3.7.6.2 Analysis to Address Sub-Question 4a – Students' Perceptions of the Listening Strategies and Listening Strategy Instruction in Hybrid Context

Research sub-question 4a stating: "How did the students perceive the listening strategies instructed in hybrid learning: their strategy use, and their preferences in terms of L2 listening instruction?" was analysed qualitatively following Thomas' (2006) general inductive approach for analysing qualitative data after the semi-structured interviews were transcribed verbatim. The general inductive approach entails several detailed readings of the raw data to gain an overview of the data and to identify themes and categories. Thus, the process of the inductive coding begins with close readings of the transcripts to gain an understanding of the themes. Then, categories or themes were created based on the evaluation aims of the research question. According to research question 5, there were three main areas to explore: students' perceptions of self-efficacy and its role in listening development; students' perceptions of the listening strategies instructed in hybrid learning; and students' preferences in terms of L2 listening instruction. These three themes constitute the main framework for the findings relating to

students' perceptions of self-efficacy and strategy instruction. The software used to conduct this analysis was Nvivo (released in September 2022). To assess the trustworthiness of the data analysis, coding consistency checks of interrater reliability was conducted to check on the clarity of categories or themes. After completing the initial coding of the data, the second coder was given the evaluation aims, developed categories and a description of each category to be reviewed. After that, the data was given to the second coder to allocate sections from the data to the categories and themes that have been created. Comparisons were then made to check on the consistency checks of coding. In case of disagreement, further analysis and discussions were conducted.

3.7.7 Summary

This chapter presented a comprehensive description of the research design and methodology employed in this study. Firstly, it provided a summary of the research questions and methodology and highlighted the importance of mixed-methods research in L2 listening. Following this, an overview of the research design was presented, along with a description of the data collection instruments used. The intervention was then discussed, including the delivery of pedagogical tools and the intervention's design. The process of data generation was also covered at two phases (pilot and main study phases). Next, a review of the challenges encountered during hybrid instruction was discussed, followed by the implications of the quasi-experimental design, and the role of the researcher. Finally, it concluded with the detailed analysis process for each research question of the study.

Chapter 4 Results

4.1 Introduction

The aim of this chapter is to present the findings of each research question. Section (4.2) provides mixed-method analysis results of the intervention on students' self-efficacy, motivation, self-regulation and listening outcomes. It also presents the qualitative findings of the individual strategy use along with results of moderating and extraneous variables. Next, section (4.2.4) focuses on presenting the results of the relationships between self-efficacy for L2 listening, self-regulation and L2 Listening motivation. In order to further examine the connections between the different variables and provide insights into the third research question, which asks whether any of the variables (self-regulation, L2 motivation, metacognitive awareness) can be used to predict L2 self-efficacy for L2 listening, section (4.4) provides the quantitative results to answer the third research question. Section (4.5) provides qualitative results on students' self-regulatory behaviours during the intervention. Finally, section (4.6) presents students' perceptions of the listening strategies and listening strategy instruction in hybrid context along with their preferences in terms of listening strategy-based instruction.

4.2 Research Question 1: To what extent do listening strategy-based instruction and feedback on listening strategy use affect self-efficacy for L2 listening, use of self-regulation strategies, L2 listening motivation, and L2 listening outcomes over the treatment period?

4.2.1 Quantitative Results

As mentioned in (Section 3.7.3.1), a one-way analysis of variance (ANOVA) was conducted first to check for any possible pre-existing differences between the control and experimental groups. Next, repeated measures ANOVA tests were carried out to measure the effect of the intervention on each dependent variable. Finally, a post-treatment one-way ANOVA was performed to compare the means of the two groups and to assess for any statistical differences followed by a post hoc analysis using Wilcoxon signed-rank test to compare the results of selected individual listening strategies.

It is important, however, to ensure independence of observations before running ANOVAs. In this study, there is no relationship between the participants in either of the groups. The homogeneity

of variance is assessed through performing Levene's test for Equality of Variances presented as part of the ANOVA analysis procedures.

The null hypothesis for the one-way ANOVA:

H_0: the population means of the two groups are equal (i.e., $\mu_1 = \mu_2$)

And the alternative hypothesis is:

H_A: the population means of the two groups are not equal (i.e., $\mu_1 \neq \mu_2$)

4.2.1.1 Time 1 Stage

Results from Time 1 one-way ANOVA are shown in Table 4.1, which revealed no statistically significant differences between the two groups on any of the instruments at the $p < 0.05$ level; therefore, we reject the null hypothesis and accept the alternative hypothesis. The lack of significance suggests that these differences are not meaningful. This can be supported by the p-values and partial eta squared values (See Table 4.1), which provide evidence for rejecting the null hypothesis. Therefore, the observed differences between the two groups may not have practical significance based on the statistical analysis.

There was homogeneity of variances, as assessed by Levene's test for equality of variances at a significance level of greater than .05 (Pallant, 2020) (See Table 4.2).

Table 4.1 Time 1 Group Comparisons for Dependent Variables (One-Way ANOVA)

Measure	Group	*M* (*SD*)	Mean square	df	*F*	*p*	η^2_p
LCT[6]	Experimental	0.80 (0.19)	0.01	1, 122	0.45	0.50	0.004
	Control	0.82 (0.16)					
ELSS[7]	Experimental	3.29 (0.67)	0.81	1, 115	1.91	0.17	0.015
	Control	3.45 (0.63)					
ELCMS[8]	Experimental	4.44 (0.94)	0.24	1, 122	0.54	0.47	0.011

[6] LCT: Listening Comprehension Test
[7] ELSS: English Listening Self-Efficacy Scale
[8] ELCMS: English Listening Comprehension Motivation Scale

Measure	Group	*M* (*SD*)	Mean square	df	*F*	*p*	η^2_p
	Control	4.29 (0.50)					
SLSQ[9]	Experimental	4.47 (0.61)	0.11	1, 122	0.31	0.58	0.003
	Control	4.53 (0.57)					
MALQ[10]	Experimental	4.14 (0.40)	0.32	1, 117	1.59	0.21	0.013
	Control	4.24 (0.49)					

Note: Effect size values are identified as ($\eta^2_{p)}$ Partial Eta Squared: 0.01, small effect; 0.06, moderate effect; 0.14, large effect (Cohen, 1988)

Table 4.2 Test of Homogeneity of Variances (Levene's) (Time 1)

Measure	F	df, df2	*p*
LCT	3.46	1, 122	0.06
ELSS	0.68	1, 122	0.41
ELCMS	2.23	1, 122	0.12
SLSQ	0.37	1, 122	0.54
MALQ	1.18	1, 122	0.28

4.2.1.2 Time 2 Stage

Results from Time 2 one-way ANOVA are shown in Table 4.3, which revealed that the two groups showed significant differences in Listening Comprehension Test (LCT) [$F(1, 119) = 16.1$, $p < .001$, $\eta^2_p = 0.117$], English Listening Self-Efficacy [$F(1, 114) = 17.1$, $p < .001$], Self-regulated Listening Strategy [$F(1, 109) = 16.6$, $p < .001$, $\eta^2_p = 0.120$], Metacognitive Awareness [$F(1, 114) = 3.78$, $p \leq 0.05$, $\eta^2_p = 0.030$]. However, there is no statistically significant difference between the two groups on English Listening Motivation [$F(1, 122) = 1.50$, $p = 0.22$]. There was homogeneity of variances,

[9] SLSQ: Self-regulated Listening Strategy Questionnaire
[10] MALQ: Metacognitive Awareness Listening Questionnaire

as assessed by Levene's test for equality of variances at a significance level of greater than .05 (Pallant, 2020) (See Table 4.4).

Table 4.3 Time 2 Group Comparisons for Dependent Variables (One-Way ANOVA)

Measure	Group	*M* (*SD*)	Mean square	df	*F*	*p*	η^2_p
LCT	Experimental	0.85 (0.17)	0.57	1, 119	16.1	< .001	0.117
	Control	0.71 (0.20)					
ELSS	Experimental	3.98 (0.47)	5.19	1, 114	17.1	< .001	0.123
	Control	3.57 (0.62)					
ELCMS	Experimental	4.97 (0.73)	0.84	1, 122	1.50	0.22	0.012
	Control	4.81 (0.77)					
SLSQ	Experimental	4.95 (0.52)	6.82	1, 109	16.6	< .001	0.120
	Control	4.48 (0.74)					
MALQ	Experimental	4.46 (0.39)	0.79	1, 114	3.78	0.05	0.030
	Control	4.30 (0.51)					

Note: Effect size values are identified as (η^2_p) Partial Eta Squared: 0.01, small effect; 0.06, moderate effect; 0.14, large effect (Cohen, 1988)

Table 4.4 Test of Homogeneity of Variances (Levene's) (Time 2)

Measure	F	df, df2	*p*
LCT	2.19	1, 122	0.14
ELSS	0.63	1, 122	0.53
ELCMS	0.17	1, 122	0.68
SLSQ	2.92	1, 122	0.09
MALQ	2.46	1, 122	0.12

4.2.1.3 Comparison of Mean Scores on Listening Comprehension, Self-Efficacy, Motivation, Self-Regulation, Metacognitive Awareness at Times 1 and 2

This section focuses on the comparison of mean scores on Listening Comprehension, Self-Efficacy, Motivation, Self-Regulation, and Metacognitive Awareness at Times 1 and 2. However, comparing learners' rates of development, such as motivation versus self-efficacy, through visual examination of separate graphs is not recommended in this section.

a. Comparison of Mean Scores on Listening Comprehension

By comparing the mean scores of both group from Time 1 to Time 2 on listening comprehension (See Figure 4.1), a statistical difference between the two groups was noticed as mentioned in (Sections 4.2.1.1 and 4.2.1.2). The difference was significant in the overall scores of the control group from Time 1 to Time 2 [M = 0.82 to M = 0.71]. The control group's Time 2 scores might be lower; however, it is important to note that the test's increased difficulty level makes it inappropriate to assert with certainty that their listening comprehension has deteriorated. It may therefore be that control group's unfamiliarity with the different accents in the IELTS[11] listening test caused the listening passages to be challenging to understand what was being said. Another reason could be attributed to learners' lack of listening strategy knowledge and strategy use, which could make them struggle to pick up on the nuances of the language and understand the intended meaning. On the other hand, the experimental group demonstrated a significant increase in their listening comprehension scores [M = 0.80 to M = 0.85] even though they were given the same IELTS listening test with unfamiliar accents and a higher level of listening material than their current listening ability.

[11] IELTS listening test includes a variety of accents from around the world, including British, Australian, and Canadian.

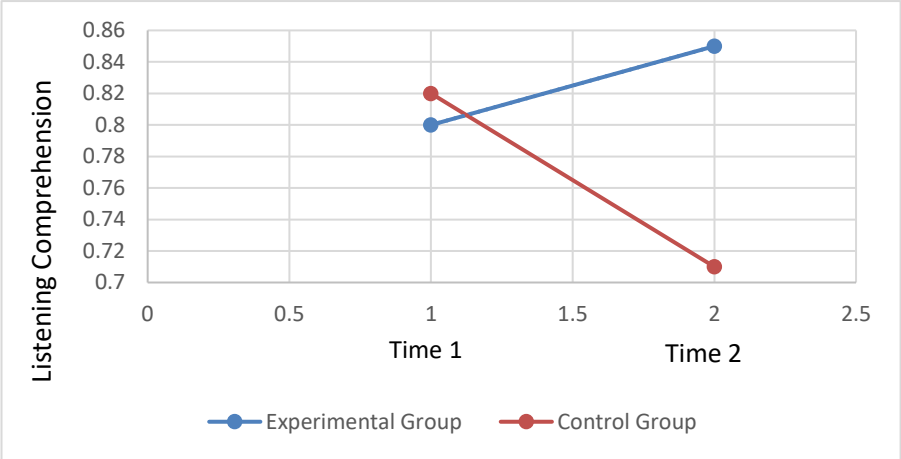

Figure 4.1 Comparison of Mean Scores on Listening Comprehension at Times 1 and 2

b. Comparison of Mean Scores on Self-Efficacy

The following graph shows the means of both groups on perceived self-efficacy at both times 1 and 2 (See Figure 4.2). During Time 1, the control group demonstrated a slightly higher score on perceived self-efficacy [Mean = 3.45] compared to the mean score of the experimental group [Mean = 3.29]. However, during Time 2, although the mean scores demonstrate an increase in self-efficacy levels for both groups from Time 1 to Time 2, the experimental group shows a higher score at Time 2 [M = 3.98] compared to the control group's mean score [M = 3.57]. It should be noted that the reported data on perceived self-efficacy include both the listening self-efficacy and source of self-efficacy information scores as described in section 3.4.2.1.

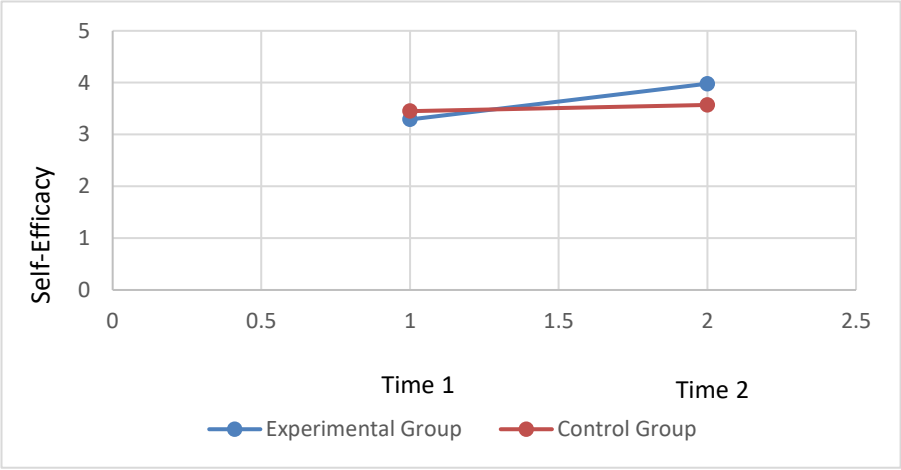

Figure 4.2 Comparison of Mean Scores on Self-Efficacy at Times 1 and 2

c. Comparison of Mean Scores on Motivation

Figure 4.3 shows a graph of the mean scores on listening motivation for both groups at times 1 and 2. The line graph shows a parallel increase in scores for both the experimental and control groups from Time 1 to Time 2. At Time 1, the experimental group had a mean

score of 4.44, and the control group had a mean score of 4.29. By Time 2, both groups had increased their scores to [M = 4.97] and [M = 4.81], respectively. In an academic context, when the control and experimental group lines exhibit parallel trajectories, it suggests that both groups experienced a similar rate of increase in motivation. However, this observation alone does not definitively indicate that the intervention applied to the experimental group directly caused their increase in motivation. Other factors, such as external influences, may contribute to the parallel lines. Further analysis, including statistical tests or a comparison with baseline data, would be necessary to establish a causal relationship between the intervention and the motivation increase observed in the experimental group.

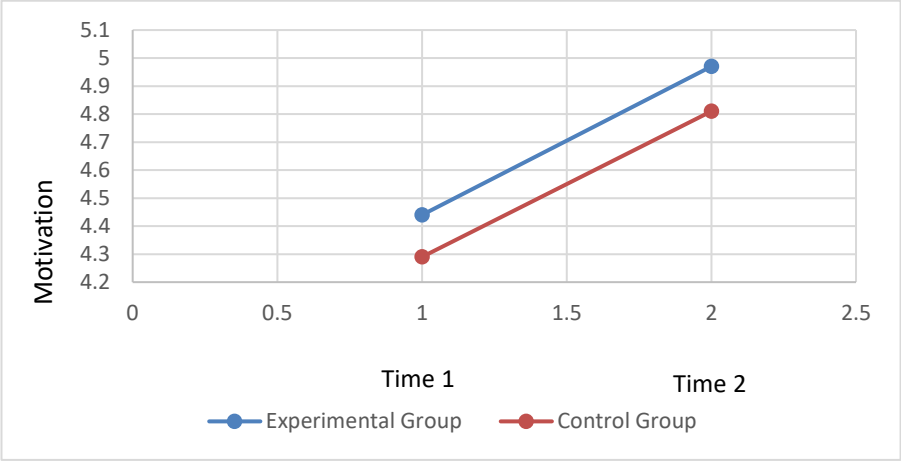

Figure 4.3 Comparison of Mean Scores on Motivation at Times 1 and 2

d. Comparison of Mean Scores on Self-Regulated Listening Strategy

The line graph in Figure 4.4 shows a significant increase in mean scores for the experimental group from Time 1 to Time 2. At time point 1, the experimental group had a mean score of 4.47, which increased to 4.95 by time point 2. The control group had a mean score of 4.53 at Time 1, and a mean score of 4.48 at Time 2, indicating a decrease in the mean score of self-regulated listening strategies. The slope of the line for the experimental group is steeper than the line for the control group, indicating a faster rate of increase. These findings suggest that the intervention was also effective for the experimental group in improving their scores on self-regulated listening strategies over time.

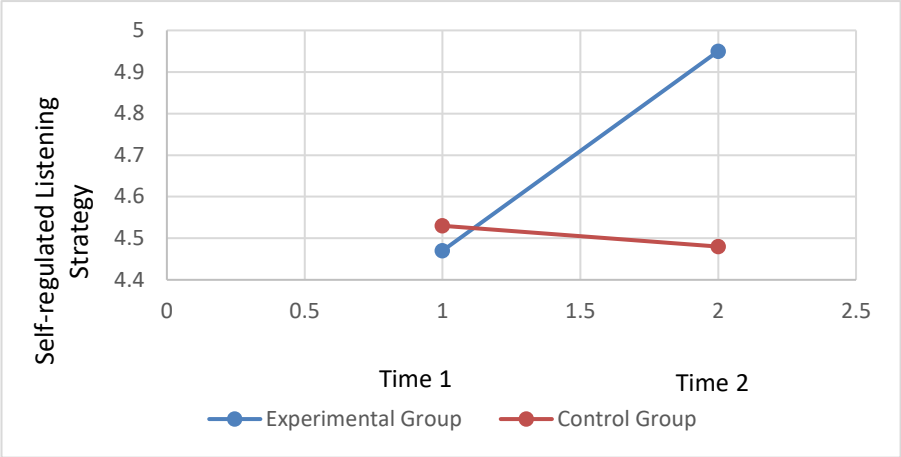

Figure 4.4 Comparison of Mean Scores on Self-Regulated Listening Strategies at Times 1 and 2

e. Comparison of Mean Scores on Metacognitive Awareness

As shown in Figure 4.5, there is an increase in scores for both the experimental and control groups from time point 1 to time point 2 on the metacognitive awareness. However, the experimental group showed a significantly higher increase in mean scores than the control group. At time point 1, the mean score for the experimental group was 4.14, while the mean score for the control group was 4.24. By time point 2, the mean score for the experimental group had increased to 4.46, while the mean score for the control group had increased to 4.30. The slope of the line for the experimental group was steeper than the slope of the line for the control group, indicating a faster rate of increase. Based on these results, it can be inferred that the intervention had an effective impact on enhancing the mean scores of metacognitive awareness for the experimental group over the treatment period.

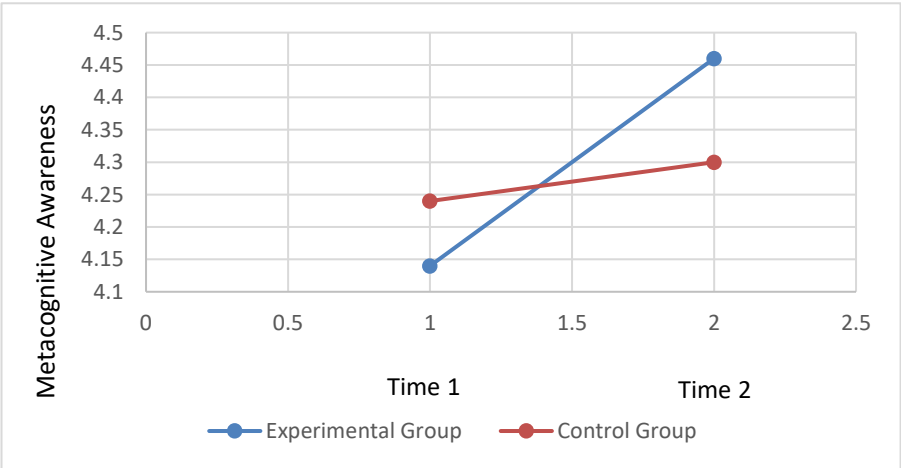

Figure 4.5 Comparison of Mean Scores on Metacognitive Awareness at Times 1 and 2

4.2.1.4 Over Time

First, a repeated measures ANOVA was performed to compare the effect of listening strategy instruction on listening outcomes (listening comprehension test scores) from Time 1 to Time 2 among the groups. It should be noted that the three repeated measures assumptions of independence, homogeneity of variances (Levene's test) and sphericity were met. The assumption of sphericity under Mauchly's test of sphericity is met since the repeated measures has only two levels. The null and alternative hypotheses for the repeated measures ANOVA are presented in Table 4.5.

Table 4.5 The null and alternative hypotheses for the repeated measures ANOVA

Measure	Null Hypothesis	Alternative Hypothesis
Listening performance (outcomes)	H_0: there is no significant difference between the two groups in listening outcomes across both time points	H_A: there is a significant difference between the two groups in listening outcomes across both time points
Self-efficacy for L2 listening	H_0: there is no significant difference between the two groups in self-efficacy for L2 listening across both time points	H_A: there is a significant difference between the two groups in self-efficacy for L2 listening across both time points
L2 listening motivation	H_0: there is no significant difference between the two groups in L2 listening motivation across both time points	H_A: there is a significant difference between the two groups in L2 listening motivation across both time points
Use of self-regulation strategies	H_0: there is no significant difference between the two groups in the use of self-regulation strategies across both time points	H_A: there is a significant difference between the two groups in the use of self-regulation strategies across both time points
Metacognitive awareness listening	H_0: there is no significant difference between the two groups in metacognitive awareness listening across both time points	H_A: there is a significant difference between the two groups in metacognitive awareness listening across both time points

Using Time ⁕ Treatment, the results reported in (See Table 4.6) revealed that the students in the experimental group significantly improved their listening comprehension in comparison to their

counterpart group, as the function of Time ⁕ Treatment was $F(1, 122) = 12.16$, $p < .001$, $\eta^2_p = 0.09$. According to Cohen (1988), there is a medium effect size in this interaction ($\eta^2_p = 0.09$), which indicates moderate changes between the two groups due to the condition. Moreover, the estimated marginal means for experimental group is bigger than the control group (0.82 and 0.77 respectively), which indicates that belonging to the experimental group makes the listening outcomes more likely higher than belonging to the control group.

Similarly, there was a statistically significant interaction between the intervention and time on listening self-efficacy, $F(1, 122) = 27.08$, $p < .001$, $\eta^2_p = 0.18$. The effect size ($\eta^2_p = 0.18$) is considered large in magnitude, which indicates significant changes between the two groups due to the treatment. Likewise, self-regulated listening strategy demonstrated statistically significant results with moderate effect size [$F(1, 122) = 12.28$, $p < .001$, $\eta^2_p = 0.09$. Although both listening motivation and metacognitive awareness demonstrated statistically significant results [$F(1, 122) = 5.96$, $p = 0.01$, and $F(1, 122) = 3.78$, $p = 0.02$ respectively], but they both revealed small effect size ($\eta^2_p = 0.04$ each), which indicates that the interaction between intervention and time on motivation and metacognitive awareness was small.

There were statistically significant differences between the means of both groups at the different time points (Time 1 and Time 2) ($p < .05$) for all measures. Therefore, we can reject the null hypotheses and can accept the alternative hypotheses.

Table 4.6 Within-Group Comparisons for Dependent Variables (RM ANOVA)

Measure	Within Subject Effects	Group	Estimated Marginal Means (SE)	df	*F*	*p*	η^2_p
LCT	Time ⁕ Treatment	Experimental	0.82 (0.02)	1, 122	12.16	< .001	0.09
		Control	0.77 (0.02)				
ELSS	Time ⁕ Treatment	Experimental	3.71 (0.05)	1, 122	27.08	< .001	0.18
		Control	3.43 (0.05)				
ELCMS	Time ⁕ Treatment	Experimental	4.95 (0.08)	1, 122	5.96	0.01	0.04
		Control	4.62 (0.08)				
SLSQ		Experimental	4.71 (0.05)	1, 122	12.28	< .001	0.09

Measure	Within Subject Effects	Group	Estimated Marginal Means (SE)	df	*F*	*p*	η^2_p
	Time ⁎ Treatment	Control	4.51 (0.05)				
MALQ	Time ⁎ Treatment	Experimental	4.30 (0.04)	1, 122	3.78	0.02	0.04
		Control	4.27 (0.04)				

4.2.2 Qualitative Results

As mentioned in (Section 3.7.3.2), the stimulated-recall data was analysed using qualitative content analysis, which involved:

a) Quantifying the qualitative data by counting how often different categories of strategies were used and organizing the results into a text matrix (frequency). The coding frequencies for participants in the experimental group were separated into two groups based on their pre- and post-test results (Table 4.10). This approach allowed for comparison between the two groups by looking at the frequency of strategy use before and after the intervention. This step is followed by a quantitative analysis of the data using Wilcoxon signed-rank test to compare/contrast the results and to triangulate the individual strategies collected from the stimulated recall sessions.
b) Qualitative analysis of the stimulated-recall data to trace the differences in participants' strategy use (manner) to explore how the intervention affected the participants' use of listening strategies. The findings from this analysis will also be used to compare/contrast the outcomes from the strategy questionnaire with the findings acquired from these reports.

4.2.2.1 The Coding Process

The stimulated recall interviews were first transcribed then transferred to NVivo (released in September 2022). Frequency counts of each single word related to strategy use was carried out to identify the most prominent strategies L2 listeners would utilize. Next, coding was conducted following Yeldham's (2019) framework for L2 listener's longitudinal development. This framework was implemented because it was developed based on cross-sectional verbal report studies of L2 adult listeners by comparing the strategies of proficient and less proficient L2 listeners (See Table 4.7).

Table 4.7 The initial coding scheme for strategy use (Adapted from Yeldham, 2019)

Framework for the Development of Individual Strategies	
Metacognitive	Forming accurate mental model
	Comprehension monitoring
	Directed attention
	Problem identification
	Comprehension evaluation
	Real-time assessment of input
	Rhetorical organization
Bottom-up	
	Words segmentation
	Using semantic cues
	Less translation and fixation
	Using intonation cues and discourse markers
	Less repetition and transfer
Top-down	
	Prediction
	Questioning elaboration
	Inferencing
	Contextualisation
	Personal elaboration

To ensure validity, after the first coding process, the whole data set was re-read again, and additional data were coded based on emerging strategies that were not found in the initial coding scheme (Braun & Clarke, 2006). Therefore, Yeldham's (2019) framework was modified by adding other listening strategies during the re-coding process (Miles & Huberman, 1994). Some of those

strategies were found in other cross-sectional studies of listening strategy use (e.g., Goh, 1998; Goh, 2002; Graham, 1997; Murphy, 1985; O'Malley et al., 1989; Smith, 2020; Vandergrift, 1997). One strategy (recall/retain information) was unique to this study. This recalling strategy was different than the one described by Murphy (1985) because it refers to remembering the meaning of certain words, without paraphrasing them, to help with comprehending the whole text, which is different from what Murphy (1985) described as recalling through paraphrasing using one's own words and expressions, which is more meaningful with a range of proficiency learners. The final coding scheme used for coding the data is presented in Table 4.8.

Table 4.8 The final coding scheme for coding listening strategies

Strategy	Code	Description of Strategy
Metacognitive Strategies		
Focusing on Comprehension Questions	1	Concentrating on the information related to comprehension questions and options (in case of MCQs) (Smith, 2020).
Planning	2	Preparing a listening plan prior to listening to the passage (Vandergrift, 1997).
Advance Organization	3	Reading the comprehension questions first before deciding on the strategies to be implemented to carry on with the task (Vandergrift, 1997).
Problem Identification	4	Clearly identify a specific problem in the task that needs to be resolved (Vandergrift, 1997).
Rhetorical Organization	5	Distinguishing main ideas from details and grasping the main topic (Murphy, 1985).
Comprehension Monitoring	6	Checking and confirming one's understanding and interpretations while listening (O'Malley et al., 1989; Vandergrift, 1997, 2003).
Directed Attention	7	Monitoring concentrations and preventing distractions (Goh, 2002).
Selective Attention	8	Focusing on specific aspects of the listening task including the language used (Graham, 1997).

Strategy	Code	Description of Strategy
Self-management	9	Recognizing the conditions that facilitate accomplishing the listening task successfully (Vandergrift, 1997).
Comprehension Evaluation	10	Deciding on the precision and correctness of comprehension and interpretation after listening (Goh, 1998).
Top-Down (Cognitive) Strategies		
Prediction	11	Making predictions about the general or specific content (Goh, 1998; Murphy, 1985).
Inferencing	12	Using information from the text to build meaning (Murphy, 1985).
Personal Elaboration	13	Making the connection between what is heard with personal experience and knowledge (Murphy, 1985).
Imagery	14	Creating mental pictures to describe meaning (Vandergrift, 1997).
Bottom-Up (Cognitive) Strategies		
Mental Translation	15	Translating words, phrases, or sentences into L1 before interpreting the meaning (Vandergrift, 1997).
Transfer	16	Applying knowledge from L1 to help with the comprehension in L2 (e.g., cognates) (Vandergrift, 1997).
Fixation	17	Concentrating on understanding small parts of a text (e.g., spelling of unfamiliar words) (Graham, 1997; Murphy, 1985; Goh, 2000).
Notetaking	18	Writing down key words, or phrases, or any piece of information to help with comprehending the text and recalling information (Smith, 2020).
***Recall/Retain Information**	19	Remembering the meaning of certain words to help with comprehending the whole text.

* A strategy unique to the study

In order to assess the reliability of the coding frame, Cohen's kappa (the chance of agreement) was applied to measure the interrater reliability of categorical items. To estimate the interrater agreement, an expert in qualitative analysis was assigned to code the data after being trained to

use the coding scheme. The expert coded 100% of the dataset and was not given information related to the part of the data (e.g., Time 1 or Time2) or whether the participants were from the experimental or control group in order to reduce the possibilities of coder's biases while coding (Mackey & Gass, 2021). The value of Cohen's Kappa was (k) = 0.73, which represents a moderate strength of agreement according to Brown's (2014) classification of reliability coefficients in L2 domain. This is also confirmed by the obtained p-value ($p < .001$), indicating that the calculated kappa was significantly different from zero. Disagreements in coding were discussed to understand the underlying reasons of each coding decision until a final agreement was reached.

4.2.2.2 The Frequency Counts of Individual Strategies

The listening strategies collected from stimulated recall session to be included in the statistical analysis are listed in Table 4.9. After the coding process (see Section 4.2.2.1), the final individual listening strategies were calculated to be used in pairwise comparisons of statistical analysis (See Table 4.10). This analysis aims to triangulate qualitative and quantitative data to examine in depth the effect of the study's intervention on strategy use.

Table 4.9 Listening strategies included in the statistical analysis.

	Metacognitive Strategies	***Top-Down (Cognitive) Strategies***	***Bottom-Up (Cognitive) Strategies***
Strategies collected from Stimulated-Recall sessions	Focusing on Comprehension Questions	Prediction	Mental Translation
	Advance Organization	Inferencing	Notetaking
	Comprehension Monitoring	Imagery	Transfer
	Selective Attention		Recall/Retain Information
	Directed Attention		Fixation
	Rhetorical Organization		

	Metacognitive Strategies	*Top-Down (Cognitive) Strategies*	*Bottom-Up (Cognitive) Strategies*
	Problem Identification		
	Comprehension Evaluation		

Table 4.10 Frequency distribution of listening strategies during Time 1 and Time 2

	Strategy	Category	Code	Frequency	Frequency %
Time 1	Focusing on Comprehension Questions	Metacognitive Strategies	1	4	33.3
	Comprehension Monitoring		6	2	16.6
	Selective Attention		8	2	16.6
	Directed Attention		7	1	8.3
	Advance Organization		3	1	8.3
	Rhetorical Organization		5	1	8.3
	Prediction	Top-Down (Cognitive) Strategies	11	1	8.3
	Inferencing		12	2	16.6
	Mental Translation	Bottom-Up (Cognitive) Strategies	15	2	16.6
	Notetaking		19	2	16.6
	Transfer		16	1	8.3
	Recall/Retain Information		17	1	8.3
Time 2	Problem Identification	Metacognitive Strategies	4	6	85.7
	Focusing on Comprehension Questions		1	3	42.8

	Strategy	Category	Code	Frequency	Frequency %
	Rhetorical Organization		5	3	42.8
	Comprehension Evaluation		10	1	14.2
	Directed Attention		7	1	14.2
	Inferencing	Top-Down (Cognitive) Strategies	12	1	14.2
	Imagery		14	1	14.2
	Fixation	Bottom-Up (Cognitive) Strategies	18	1	14.2

4.2.2.3 The Statistical Analysis of Individual Strategies

In order to triangulate the data following the convergence model (Creswell, Plano Clark, et al., 2003), the individual strategies collected from the stimulated recall sessions were analysed quantitatively as a means to compare and contrast the results. The Wilcoxon signed-rank test, which is the non-parametric equivalent of paired-samples t-test for the difference between two dependent samples, is used to compare pre-post individual strategies for the experimental group (See Table 4.11). It is used to measure the differences in the distribution of two 'related samples' on a rating scale (Cohen et al., 2018, p. 795). Choosing Wilcoxon signed-rank test was justified due the violation of normality assumption. The histogram inspection indicates non-normal distribution of the individual strategies. Although the whole sample population had normal distribution (as mentioned in Section 3.7.2), the subsets (or the individual strategies) did not pass the normality test because they represent one subpopulation only (the experimental group). It should be mentioned that four strategies from the qualitative data were not measured quantitatively because they were not included in the questionnaires. These strategies are: Rhetorical Organization, Notetaking, Recall/Retain Information and Problem Identification.

Table 4.11 Medians, p value and Rank Biserial Correlation of the Wilcoxon test for the Experiment group before and after the intervention

Strategy	Pre-test (*Mdn)*	Post-test (*Mdn)*	*p*-value	*rrb*	Wilcoxon W
Focusing on Comprehension Questions	5.00	5.00	0.020	-0.40	258.50
Advance Organization	4.00	5.00	0.006	-0.44	345.00
Comprehension Monitoring	5.00	5.00	0.035	-0.34	404.00
Selective Attention	4.00	4.00	0.004	-0.49	253.00
Directed Attention	5.00	5.00	0.013	-0.43	255.50
Comprehension Evaluation	4.00	5.00	0.002	-0.51	315.00
Prediction	3.00	4.00	0.002	-0.49	325.00
Inferencing	5.00	6.00	0.033	-0.35	336.50
Mental Translation	5.00	4.00	0.080	0.30	643.50
Transfer	5.00	6.00	0.028	-0.42	174.00
Fixation	4.00	4.00	0.004	-0.49	253.00
Imagery	5.00	5.00	0.018	-0.38	348.50

Note: Effect size value (*rrb*) following Rank-Biserial Correlation: < 0.1, trivial effect; 0.1, small effect; 0.3, medium effect; 0.5, large effect. Effect size value = 0 means no difference, positive values mean that the pre-test group tends to be larger than the post-test group, negative values mean that the post-test group tends to be larger than the pre-test group.

The results of Wilcoxon Signed Rank tests reveal that there is a significant difference between the experimental group's listening strategies of the following dimensions: (a) (Advance Organization) before (*Mdn*=4.00) and after (*Mdn*=5.00) conducting the intervention, *W*= 345.00, *p*< 0.006. There is a medium effect size for this analysis (*rrb* = -0.44), (b) (Comprehension Evaluation) before (*Mdn*=4.00) and after (*Mdn*=5.00) conducting the intervention, *W*= 315.00, *p*<0.002. There is a large effect size for this analysis (*rrb* = -0.51), (c) (Prediction) before (*Mdn*=3.00) and after (*Mdn*=4.00) conducting the intervention, *W*= 325.00, *p*<0.002. There is a medium effect size for

this analysis (*rrb* = -0.49), (d) (Inferencing) before (*Mdn*=5.00) and after (*Mdn*=6.00) conducting the intervention, *W*= 336.50, *p*<0.033. There is a medium effect size for this analysis (*rrb* = -0.35), (e) (Transfer) before (*Mdn*=5.00) and after (*Mdn*=6.00) conducting the intervention, *W*= 174.00, *p*<0.028. There is a medium effect size for this analysis (*rrb* = -0.42).

The medians of these strategies show that direction of difference is higher in the post-test than in pre-test. However, the medians of the (Mental Translation) refer to the opposite. The median of the pre-test is higher than the post-test, which indicates that the students used to deploy mental translation more before the intervention.

4.2.2.4 The Use of Listening Strategies

Even though the numerical data demonstrated in Table 4.10 and Table 4.11 above highlight the changes in strategy use from Time 1 to Time 2 among the six participants from the experimental group. However, the increase in the number and frequency of strategy use does not provide a comprehensive understanding of whether the strategies were used properly or resulted in better comprehension and only provides a superficial picture of listening strategy use. Simple strategy counts cannot demonstrate how a combination of strategies was deployed to understand the meaning of an aural text or whether an inference (or another listening strategy) was used accurately or effectively at a certain part of the text. Therefore, before drawing any conclusions, it was necessary to investigate these issues in more depth by examining students' self-reports during stimulated-recall interviews. It was important to look closely at the variation in strategy use that was not apparent through simple strategy counts. The discussion of the qualitative analysis is presented in this section along with relevant excerpts from the participants' reports, highlighting their use of listening strategies.

a) Strategy Use: Time 1

During Time 1, students' utilisation of focusing on comprehension questions before they start to listen to the aural text was the most prominent listening strategy. This type of advance organization (metacognitive strategy) was found to be excessively deployed to facilitate comprehending the text. This would indicate that the students were familiar with this strategy prior to the treatment. One reason behind that could be associated with their previous listening instruction in public school (e.g., intermediate, or high school), where the most common type of listening comprehension exam questions is the multiple-choice questions (MCQs). The MCQs usually require students to read the question and the following options first before starting the listening process to approach the listening more strategically and efficiently. Some advantages of reviewing the questions and choices beforehand include:

- it helps the listener to focus their attention on the relevant information that will answer the questions. This is because they are already aware of what they need to listen out for.
- it also helps the listener to anticipate the type of information that will be required to answer the questions. This can help to identify and understand the relevant information more quickly and accurately.
- reading the questions and options first can also help the listener to eliminate incorrect options, making it easier to identify the correct answer.

One of the participants referred to deploying this strategy before she started the listening process by saying:

P4: *'I focused on the options from the questions. I read them more than once because sometimes he mentions one of the options but it's not the correct answer'*

Another participant also mentioned the same strategy use when she said:

P2: *'… I didn't think about the main idea because I read the questions before, so I know what should I focus on …'*

P1 also shared applying the same strategy when she revealed:

P1: *'After reading the questions, I tried to give my own answers even before listening, then double-check them later'*

In the previous excerpt, P1 deployed two metacognitive strategies consecutively to get the correct meaning. First, she skimmed and read through the question, then she applied prediction by using the question as a guide to help her focus more when listening to the audio while applying (selective/directed attention strategy) to double-check her predictions or adjust them as needed.

Another notable listening strategy employed by the participants during Time 1 was inferencing (cognitive strategy). Inferencing is a fundamental aspect of listening comprehension that involves interpreting and constructing meaning from an aural text using background knowledge, linguistic cues, and logical reasoning. Although it is commonly used by L2 proficient listeners to bridge the gap between their existing knowledge and the information presented in the text, however, it could be a complex and challenging strategy especially for low proficient listeners or listeners with limited strategy knowledge. The following excerpt is an example of inaccurate inferencing about the meaning:

P5: *'For me, I tried to gather the words I know and link them together to build meaning and help me comprehend the audio text better. For example, I know the meaning of the word effect, it is Ta'atheer, so I recognized that the speaker was talking about the influence of something on someone'*

In the previous example, although P5 tried to guess the meaning of unknown words, even by applying (mental translation) as she translated the word 'effect' into Arabic, but she failed to construct the correct general meaning from the aural text at the end when she chose the wrong answer. Hence, while she was trying to infer the correct meaning of every word, she failed to convey the intended message leading her to a utilisation problem. A utilisation problem is understanding every word and every literal information but not the intended meaning (Goh, 1998). This could be attributed to either lack of contextual information or lack of listener's background knowledge, which are essential components of inferencing strategy.

b) Strategy Use: Time 2

During Time 2, the participants were presented with a listening material that was more advanced than their current listening proficiency level (See Appendix F for audio script). The purpose of this was to investigate how the students would deal with gaps in listening comprehension and to observe their use of compensatory strategies to overcome comprehension breakdowns after the treatment. Interestingly, all the six participants used problem identification strategy when they first listened to the aural text. According to Vandergrift (1997, p. 393), problem identification refers to 'explicitly identifying the central point needing resolution in a task or identifying an aspect of the task that hinders its successful completion'. This strategy is especially important in listening to difficult aural texts because it helps the listener to assess, recognize and identify specific areas of difficulty in their comprehension. By identifying the problem areas, the listeners can then focus their attention and utilize the appropriate strategies to overcome these difficulties. This approach also allows the listeners to develop a deeper understanding of the text and to improve their overall listening skill. During this stimulated recall session, although the students did not report on or attempted to deploy this strategy before, even during the intervention (See the results of self-regulatory behaviours in 4.5), but they were introduced to this strategy at the beginning of the intervention and used the Metacognitive and Cognitive Listening Comprehension Strategies List (See Appendix J) as a reference when carrying out each listening activity during the intervention. So, they were familiar with this strategy and its function even though they had not deployed it before (or maybe deployed it but did not report on using it). What was also interesting in the participants' problem identification process was not only their ability to identify the difficult parts in the aural text, but their ability to also recognize the high level of difficulty of the following

comprehension questions. All the eight questions were indirect and had tricky options, except for question number two, which was the only direct question, and which all the six participants got it right. Some of the examples from participants' problem identification process include:

P5: *'I got the general meaning, but I couldn't answer the questions correctly, … he said all the answers'*

P6: *'the questions were indirect, and the speaker speaks fast'*

P2: *'Actually, it was hard to get the answers. I'm not really sure, … number 3 was hard. I'm confused between C and B'*

It was apparent that all the six participants had comprehension problems with the input, albeit in different areas from each other, but they all had comprehension issues with perception. While some of them did not recognize the words they heard due to fast speech rate, others neglected the next part because they were thinking about the meaning of the current one. Even when some of them comprehended a listening section, they struggled with answering its relevant questions due to the complex nature of indirect questions and/or their confusing options.

Three of the participants, who were all high proficient listeners, applied two metacognitive listening strategies before they began to listen to the first segment. Those strategies were Focusing on Comprehension Questions and Rhetorical Organization. Rhetorical Organization refers to the ability to distinguish the general idea from details and comprehending the main topic of the text (Murphy, 1985). Both strategies are similar in their function as the basis for inferencing and aiding in listening selectively. Although those three participants did not get all the answers correctly, but they outperformed the other three participants and scored higher than them. One of the high proficient listeners even deployed imagery, which is the ability to create mental pictures to comprehend meaning (Vandergrift, 1997). She revealed:

P5: *'… for this listening I imagined them inside an office comparing things …'*

Overall, the results obtained from the stimulated recalls during Time 2 unveiled a number of issues that were not discernible during Time 1 (before the intervention). As it was shown, high proficient listeners were able to adapt their strategic behaviours and adjust their approach as needed based on the specific demands of the listening task and the level of difficulty of the aural text. When faced with difficult listening comprehension breakdowns, high proficient listeners can use a variety of compensatory strategies to aid their comprehension (e.g., a combination of top-down and bottom-up strategies). Changes could also be traced in their processing habits as they demonstrated a wide range of strategies at their disposal to overcome listening difficulties. This

indicates that understanding the task demands accompanied by strategy knowledge and effective use of those strategies can serve as effective means to attain a successful outcome in listening comprehension.

4.2.3 Mixed-Methods Analysis of Individual Strategies

The triangulation design (Convergence Model) by Creswell, et al., (2003) (presented in Section 3.7.3.3) was used to compare-and-contrast the results of the quantitative and qualitative analyses.

The qualitative analysis pointed to several individual listening strategies as most commonly used among the participants from the experimental group in Time 1. During Time 2, the participants utilized a different constellation of listening strategies. This can be attributed to several reasons. First, the level of difficulty of the listening passage chosen for Time 2 was higher than the one used in Time 1, which led to increased cognitive difficulties and the need to deploy other strategies to compensate for the comprehension breakdown. Second, after the intervention, the participants were exposed to more types of metacognitive and cognitive listening strategies, which they have implemented regularly during the listening activities. This also explains their increased use of metacognitive strategies (75%) during Time 2 compared to Time 1 (50%).

The number of deployed strategies during Time 1 and Time 2 is also different. While the participants utilised more strategies during Time 1 (12 strategies), they only used (8 strategies) during Time 2. All 6 participants used (Problem Identification) with a high frequency percentage of (85.7%) to assess the listening passage. They also used both (Focusing on Comprehension Questions) and (Rhetorical Organization) equally (42.8%) to focus on both questions and the main idea of the passage. The difficulty level of the listening during Time 2 led to increased nervousness while listening, which was also reported during the stimulated recall sessions. This explains why the participants used fewer listening strategies during Time 2 because higher anxiety levels resulted in more cognitive loads, which hindered the cognitive and strategic processing (Smith, 2020).

The quantitative analysis showed that there was a significant difference in strategy use from Time 1 to Time 2 for all the listening strategies collected from the online questionnaires except for the (Mental Translation). Mental translation appeared to be less used based on the medians (5.00) during Time 1 compared to (4.00) during Time 2. The metacognitive strategies (e.g., Advance Organization, Comprehension Evaluation, Prediction, Inferencing and Transfer) reveal higher medians during Time 2 than Time 1. The other listening strategies (e.g., Focusing on

Comprehension Questions and Comprehension Monitoring) show a significant p-values but equal medians. The findings from qualitative and quantitative analyses are listed in Figure 4.6.

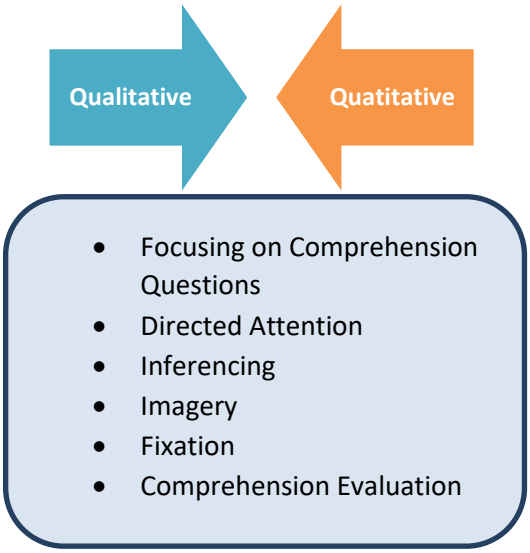

Figure 4.6 Mixed-Methods Analysis of Qualitative and Quantitative Results (Convergence Model)

Moderating, Extraneous and Participant Variables

This subsection is relevant to RQ1: "To what extent do listening strategy-based instruction and feedback on listening strategy use affect self-efficacy for L2 listening, use of self-regulation strategies, L2 listening motivation, and L2 listening outcomes over the treatment period?" because in a quasi-experimental study, participants are not fully randomly assigned to groups, which can pose a challenge in controlling for extraneous variables that may impact the outcomes of the study (Cook & Wong, 2008; Kirk, 2009). Therefore, it is important to examine moderating and extraneous variables that may affect the relationship between dependent and independent variables. In this study, the moderating variable is English language proficiency. This moderating variable may affect the relationship between variables and influence the results of the treatment. For instance, if participants with different proficiency levels are grouped together, the study results may be impacted by this variable. By examining language proficiency, it is possible to better understand the relationship between variables and identify limitations in the study's external validity. Extraneous variables, on the other hand, are variables that may also potentially affect the outcome of the study. These variables can include participant variables, such as their educational background and characteristics, that may influence the study outcomes. Thus, it is also important to investigate the extraneous/participant variables because it allows to identify potential confounding factors that may have impacted the results of the intervention.

4.2.3.1 English Language Proficiency as a Moderating Variable

In order to explore the effect of the moderator variable (English language proficiency) on the relationship between the dependent variables (self-efficacy, self-regulation, metacognitive awareness, motivation and listening outcomes) and independent variable (the intervention), a regression analysis in SPSS was used to test the moderating effect by multiplying the moderator variable with the independent variable to get the interaction effect for each dependent variable. If the coefficient of the interaction is significant, then there is moderation.

The results of the linear regression analysis of the control group for the listening outcome as a dependent variable show that 2.76% of the variance of listening outcomes is explained by the predictors $F = 2.76$, $p = .05$ (See Table 4.12). The value of the R square ($R^2 = .125$) means that the independent variable explains 12% of the variation in the dependent variable (listening outcome). With regards to the individual contribution of each predictor, the findings indicate that the final exam scores (β=1.64, p=.018) and Listening pre-test scores (β=1.38, p=.007) positively influence the listening outcomes. As for the moderation effect results, the interaction effect shows that the (p = .014). Since the p-value is lower than 0.05, the moderator variable (English language proficiency) is considered to influence the relationship between the listening pre-test scores and the listening outcomes (post-test scores).

Likewise, there is a moderating effect from the English language proficiency on the relationship between self-efficacy pre-test scores and self-efficacy post-test scores (β=1.88, p=.046) for the control group (See Table 4.13).

Table 4.12 Regression Analysis for Listening Outcomes as a Dependent Variable (Control Group)

Model 1: Full Model (Listening Outcomes)			
F	***p***	**R^2**	**Adjusted R^2**
2.76	.050	.125	.080
Coefficients	***p***	**Standardized Coefficient Beta (β)**	
Final Exam	.018	1.64	
Listening Pre-test	.007	1.38	
Interaction	.014	-2.22	

Dependent variable: Listening Post-test

Table 4.13 Regression Analysis for Self-Efficacy as a Dependent Variable (Control Group)

Model 1: Full Model (Self-Efficacy)			
F	***p***	**R^2**	**Adjusted R^2**
1.44	.240	.069	.021
Coefficients	***p***	**Standardized Coefficient Beta (*β*)**	
Final Exam	.042	-1.56	
Self-Efficacy Pre-test	.056	-1.00	
Interaction	.046	1.88	

Dependent variable: Self-Efficacy Post-test

As for the experimental group, the results of the regression analysis show that there were no moderating effects of English language proficiency on any of the dependent variables. However, only final exam scores (*β*=1.22, *p*=.034) has a positive influence on listening outcomes (See Table 4.14).

Table 4.14 Regression Analysis for Listening Outcomes as a Dependent Variable (Experiment Group)

Model 1: Full Model (Listening Outcomes)			
F	**Sig.**	**R^2**	**Adjusted R^2**
3.83	.014	.166	.122
Coefficients	**Sig.**	**Standardized Coefficient Beta (β)**	
Final Exam	.034	1.22	
Listening Pre-test	.174	-0.89	
Interaction	.116	1.40	

Dependent variable: Listening Post-test

4.2.3.2 Sample Demographics as Extraneous/Participant Variables

This section briefly describes the self-report data and demographics of the sample in terms of age, confidence in English listening proficiency, length of learning English and English language use (See Table 3.3). In terms of age, the experimental group has higher mean (*M* = 18.66) than the control group (*M* = 18.55) indicating that the experimental group has higher age students. This is also shown in the percentages of each group; the experimental group has 29% students aged 19 compared with their counterpart, which has only 14.5% students aged 19. Regarding the participant confidence in English listening proficiency, there was not a substantial difference between the two groups except for participating in English listening activities outside the classroom as the experimental group demonstrated higher percentage of outside-classroom participation (27%) compared with the control group (8%). The length of learning English for the two groups is nearly similar except that the experimental group revealed higher percentage in travelling or living in English-speaking countries for more than 3 months (11%) when compared with the control group (5%). Also, the educational level when started to learn English showed that the experimental group started to learn English at an earlier stage than the control group (since pre-school) (16% and 3% respectively).

4.2.4 Summary of the Main Findings from Research Question 1

In order to answer research question one, which states: 'To what extent do listening strategy-based instruction and feedback on listening strategy use affect self-efficacy for L2 listening, use of self-regulation strategies, L2 listening motivation, and L2 listening outcomes over the treatment period?, running a mixed-methods analysis was required in order to provide a better and deeper understanding and to depict a fuller picture that can enhance description and understanding of research question one (Creswell & Clark, 2017). Therefore, a quantitative approach was first adopted to analyse the effect of the intervention on listening proficiency, self-efficacy, motivation and self-regulation. The results from the repeated-measures ANOVA suggest a notable interaction between the intervention and time on listening self-efficacy, self-regulated listening strategies, motivation and L2 listening outcomes. More specifically, the students in the experimental group significantly improved their listening comprehension, self-efficacy, motivation and self-regulation in comparison to their counterpart group during Time 2. The qualitative analysis was carried out by running a content analysis, which involved: a) a quantification method to count the frequency of the listening strategies collected from the stimulated recall sessions, and b) a qualitative content analysis of the stimulated-recall data to examine the variations in participants' strategy utilization (manner) and investigate the impact of the intervention on their usage of listening strategies. The qualitative analysis revealed that participants in the experimental group

predominantly employed specific listening strategies during Time 1. However, in Time 2, a different set of strategies was observed among the participants. The listening strategies that emerged as the most frequently employed, as indicated by the findings from the combined qualitative and quantitative analyses or the mixed-methods analysis are: Focusing on Comprehension Questions, Directed Attention, Inferencing, Imagery, Fixation, and Comprehension Evaluation. It should be mentioned that four strategies from the qualitative data were not measured quantitatively (by questionnaires) but were reported to be deployed by the participants during the stimulated recall sessions. These strategies are: Rhetorical Organization, Notetaking, Recall/Retain Information and Problem Identification. Finally, to measure the effect of moderating and extraneous variables on the intervention, a quantitative analysis was conducted. Regarding moderation effect findings of the control group, the interaction effect indicates a significant influence of the moderator variable (English language proficiency) on the relationship between the listening Time 1 scores and the listening outcomes (Time 2 scores), as evidenced by a p-value of .014. Similarly, the English language proficiency also demonstrates a moderating effect on the relationship between self-efficacy Time 1 scores and self-efficacy Time 2 scores. However, the results of the experimental group indicate that there were no significant moderating effects of English language proficiency on any of the dependent variables. However, it is worth noting that final exam scores exhibited a positive influence on listening outcomes, with a beta coefficient of 1.22 and a p-value of .034.

4.3 Research Question 2 – What are the relationships between self-efficacy for L2 listening, self-regulation, and L2 listening motivation at all test times?

The Spearman's correlation analyses were carried out at two times (Time 1 and Time 2) among control and experimental groups separately at each time point in order to answer research question 2. The data from each variable (obtained by a separate questionnaire) were aggregated to be expressed in a summary form for all the values. This means that the total score for each variable will be computed as some variables are made up of sub-scales. Because some variables are multidimensional, data aggregation will encompass both the general aggregated score and subscale scores, as detailed in Table 4.15. Additionally, because the self-efficacy variable was measured on a different scale than the other variables (5-point Likert scale), while motivation and self-regulation were measured on 6-point Likert scale, rescaling was performed on the self-efficacy values to convert the scale to have the same upper and lower levels as other scales through variable transformation.

Table 4.15 List of variables, scales, and subscales

Variable	Scale	Subscale		Abbreviation	
Self-Efficacy	English Listening Self-Efficacy Scale (ELSS)	Listening self-efficacy			Self-Efficacy General
		Source of self-efficacy information	Strategic Awareness	Self-efficacy Strategic	
			Performance Outcomes	Self-efficacy Performance	
			Physiological State	Self-efficacy Physio	
			Verbal Persuasion	Self-efficacy Verbal	
			Vicarious Experience	Self-efficacy Vicarious	
Motivation	English Listening Comprehension Motivation Scale (ELCMS)			Motivation	
Self-Regulation	Self-Regulated Listening Strategy Questionnaire (SLSQ)	Self-regulatory behaviours in listening		Self-regulatory behaviours	Self-Regulation General
		Meta-affective listening strategies		Self-regulation/Meta-affective	
		Meta-sociocultural-interactive strategies		Self-regulation/Meta-sociocultural	
		Seeking social assistance strategies		Self-regulation/Seeking social assist	
		Planning and Evaluation		MALQ Planning/Evaluation	

Variable	Scale	Subscale		Abbreviation	
Self-Regulation	Metacognitive Awareness Listening Questionnaire (MALQ)	Directed attention		MALQ Attention	MALQ General
		Person knowledge		MALQ Person	
		Mental translation		MALQ Translation	
		Problem-solving		MALQ Problem-solving	

4.3.1 Quantitative Results

The Spearman's rank-order correlation (rho) was conducted to examine the associations between the following variables: Self-efficacy, Self-regulation, and Motivation. The analysis was performed during Time 1 (control vs. experimental) and during Time 2 (control vs. experimental) as shown in the correlation matrices (TablesTable 4.16, Table 4.17, Table 4.18 and Table 4.19).

It should be noted that for the data reporting for research question two, the main focus was on highlighting the significant findings; not all the findings were reported in the tables due to the large number of variables. Those main findings include the statistically significant correlated variables based on the assumptions and hypotheses set beforehand. Effect sizes were interpreted according to the L2 research benchmarks for correlation coefficients r_s (rho) (0.25 = small, 0.40 = medium, and 0.60 = large) (Plonsky & Oswald, 2014).

4.3.2 Null and Alternative Hypotheses for Research Question 2

H_0: There is no significant correlation among Motivation, Self-Regulation and Self- Efficacy in the control and experimental groups at all time points.

H_1: There are significant correlations among Motivation, Self-Regulation and Self- Efficacy in the control and experimental groups at all time points.

Table 4.16 Correlation Matrix for Control Group (Time 1)

Variable	Self-regulation	Motivation	MALQ	Self-efficacy Strategic	Self-efficacy Performance	MALQ Planning	Self-regulation Seeking social assist
Self-regulation	-	.08	.40 **	-.10	.02	.32 *	.42 ***
Self-efficacy General	.05	.22	-.08	.90 ***	.76 ***	.01	.07
Self-efficacy Physio	.09	.29 *	-.04	0.39 **	0.232	0.021	0.36 **
MALQ Translation	.22	.07	.59***	-.29*	-.32*	.20	.28*
Self-regulation/Meta-affective	.55***	.03	.41**	-.12	-.01	.48***	.01

Note. * p < .05, ** p < .01, *** p < .001

The key outcome of the correlation analysis conducted on the control group at Time 1 suggests that there is no significant correlation between the fundamental concepts (Self-efficacy, Self-regulation, and Motivation), as demonstrated by the specific low-level relationships described below.

Table 4.16 shows that during Time 1 (control group), there were small positive association between Self-regulation (self-regulation strategy use) and MALQ planning (metacognitive awareness planning strategies) (r_s = 0.324, p < .05), Self-efficacy/Physio and Self-regulation /Seeking social assist (r_s =.36, p < .05), Self-efficacy/Physio and Self-efficacy/strategic (r_s = 0.39, p < .01), Self-efficacy/Physio and Motivation (r_s = 0.29, p < .05), and Self-regulation/Seeking social assist and MALQ translation (r_s = 0.283, p < .05).

Table 4.16 also shows that during Time 1 (control group), there were medium positive association between Self-regulation and MALQ (r_s = 0.40, p < .01), Self-regulation and Self-regulation/Seeking social assist (r_s = 0.42, p < 0.001), MALQ and MALQ translation (r_s = 0.59, p < .001), Self-regulation /Meta-affective and Self-regulation (r_s = 0.55, p < .001), Self-regulation /Meta-affective and MALQ (r_s =.41, p < .01), and Self-regulation/Meta-affective and MALQ planning (r_s =.48, p < .01). In T1 control group, there were strong positive association between Self-efficacy general and Self-efficacy/strategic (r_s = 0.90, p < .001) and Self-efficacy general and Self-efficacy/Performance (r_s = 0.76, p < .001). Only Two negative association were found between MALQ translation and Self-efficacy/Strategic (r_s = -0.29, p < .05), and MALQ translation and Self-efficacy/Performance (r_s = -0.32, p < .05). On the basis of these results, we will accept our null hypothesis that during time 1 for control group, there were no significant correlations between the main constructs: Motivation, Self-Regulation and Self- Efficacy at Time 1 (Control group) as p-value was greater than alpha value .05 (See Table 4.16).

Table 4.17 Correlation Matrix for Experimental Group (Time 1)

Variable	MALQ	Motivation	Self-efficacy Performance	Self-efficacy Vicarious	MALQ Planning	MALQ Attention
Self-regulation	.42***	-.22	-.02	-.20	.31*	.28*
Self-regulation/Meta-affective	.44***	-.04	.03	-.11	.16	.56***

Variable	MALQ	Motivation	Self-efficacy Performance	Self-efficacy Vicarious	MALQ Planning	MALQ Attention
Self-regulation/Meta-sociocultural	.19	-.3*	-.03	-.27 *	.12	-.05
Self-regulation/Seeking social assist	.24	-.02	-.01	-04	.37**	.02
MALQ Translation	.36**	.01	-.25*	-.19	-.02	.02

Note. * p < .05, ** p < .01, *** p < .001

Similar to the results of the control group (Time 1), the main finding of the correlation analysis for the experimental group at Time 1 indicate a lack of correlational relationship between the core constructs (Self-efficacy, Self-regulation and Motivation) as represented in the details of low order relationships (Table 4.17).

For experimental group (Time 1), there were small positive association between MALQ attention and Self-regulation (r_s = 0.28, p < .05), MALQ planning and Self-regulation (r_s = 0.31, p < .05), Self-regulation/Seeking social assist and MALQ Planning (r_s = 0.37, p < .01), and MALQ Translation and MALQ (r_s = 0.36, p < .01) (See Table 4.17). Negative correlations with small effect sizes were found between Self-efficacy/Vicarious and Self-regulation/Meta-sociocultural (r_s = -.27, p < .05), Self-regulation/Meta-sociocultural and Motivation (r_s = -0.3, p < .05) and MALQ Translation and Self-efficacy/Performance (r_s = -.25, p < .05). Medium size positive correlations were found between MALQ attention and Self-regulation/Meta-affective (r_s = 0.56, p < .001), MALQ and Self-regulation/Meta-affective (r_s = 0.44, p < .001) and between MALQ and Self-regulation (r_s = 0.42, p < .001). However, no correlations were found with large effect size. On the basis of these results, we will accept our null hypothesis that during Time 1 for experimental group, there were no significant correlation among Motivation, Self-Regulation and Self- Efficacy as p-value was greater than alpha value .05 (See Table 4.17).

Table 4.18 Correlation Matrix for Control Group (Time 2)

Variable	Self-regulation	MALQ	Motivation	Self-efficacy Performance	Self-efficacy Verbal
Self-regulation	-	.56 ***	.19	.19	.23
Self-efficacy General	.15	.11	.47 ***	.66 ***	.76 ***
Self-regulation/Seeking social assist	.74 ***	.42 ***	.22	.26 *	.13
MALQ Planning	.50 ***	.8 ***	.26 *	.26 *	.33 **
MALQ Attention	.37 **	.59 ***	.14	.10	.38 **

Note. * p < .05, ** p < .01, *** p < .001

Table 4.18 shows that during Time 2 among the control group there were positive significant correlations with small effect size among MALQ Attention and Self-regulation (r_s = 0.37, p < 0.01), MALQ Attention and Self-efficacy verbal (r_s = 0.38, p < 0.01), MALQ Planning with Motivation (r_s = 0.26, p < 0.05), Self-efficacy Performance (r_s = 0.26, p < .05), and Self-efficacy verbal (r_s = 0.33, p < 0.01), and Self-regulation Seeking social assistance with Self-efficacy Performance (r_s = 0.26, p < .05). Table 4.18 also shows that there were positive significant correlations with medium effect size between MALQ Attention and MALQ (r_s = 0.59, p < 0.001), MALQ Planning and Self-regulation (r_s = 0.50, p < 0.001), Self-regulation/Seeking social assist and MALQ (r_s = 0.42, p < .001), Self-efficacy General and Motivation (r_s = 0.47, p < 0.001), and Self-regulation and MALQ (r_s = 0.56, p < 0.001). There were positive associations too with large effect size between MALQ Planning and MALQ (r_s = 0.80, p < .001), MALQ and Self-regulation/Seeking social assistance (r_s = 0.74, p < .001), and Self-efficacy general with ELSS performance (r_s = 0.66, p < 0.001) and Self-efficacy verbal (r_s = 0.76, p < .001). However, this time no negative correlations were found. On the basis of these results, we will reject our null hypothesis that during time 2 for control group, there was no significant correlation between Motivation and Self- Efficacy as pvalue was smaller than alpha value .05 and r_s = 0.47 with large effect size (See Table 4.18). However, we will accept our null hypothesis that during time 2 for control group, there were no significant correlation between Self-efficacy and Self-Regulation, and Motivation and self-regulation as the p-value was greater than alpha value .05 (See Table 4.18).

Table 4.19 Correlation Matrix for Experimental Group (Time 2)

Variable	Self-regulation	MALQ	Motivation	MALQ Attention	MALQ Problem-solving	Self-regulation /Meta-affective
Self-regulation	-	.50***	.37 **	.34 **	.60***	.65 ***
Self-efficacy General	.34 **	.28 *	.47 ***	.24	.24	.36 **
Self-efficacy Vicarious	.31 *	.44 ***	0.00	.37 **	.3 *	.38 **
Self-regulatory behaviours	.75 ***	.28 *	.26 *	.22	.43 ***	.27 *
Self-regulation/Meta-sociocultural	.76 ***	.26 *	.31 *	.17	.48 ***	.44 ***

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

Likewise, there were several statistically significant positive correlations between the variables during Time 2 among the experimental group. Table 4.19 shows that there were positive significant correlation with small effect of Self-regulation/Meta-sociocultural with MALQ (r_s = 0.26, p < 0.05), Motivation (r_s = 0.31, p < 0.05), Self-regulatory behaviours with MALQ (r_s = 0.28, p < 0.05), Motivation (r_s = 0.26 p < 0.05), and Self-regulation/Meta-affective (r_s = 0.27, p < 0.05), Self-efficacy Vicarious with SLSQ (r_s = 0.31, p < 0.05), MALQ Attention (r_s = 0.37, p < 0.05), MALQ Problem-solving (r_s = 0.31, p < 0.05), and Self-regulation/Meta-affective (r_s = 0.38, p < 0.05), Self-efficacy General with MALQ (r_s = 0.28, p < 0.05), and Self-regulation/Meta-affective (r_s = 0.36, p < 0.01) and Self-regulation with Motivation (r_s = 0.37, p < .01), MALQ Attention (r_s = 0.34, p < 0.01), Self-regulation/Meta-affective (r_s = 0.37, p = 0.003) and Self-efficacy general with SLSQ (r_s = 0.34, p = 0.01). Table 4.19, also shows that there were medium association of Self-regulation/Meta-sociocultural with MALQ Problem-solving (r_s = 0.48, p < *.001*) and Self-regulation/Meta-affective (r_s = 0.44, p < *.001*), Self-regulatory behaviours with MALQ Problem-solving (r_s = 0.43, p < *.001*), between Self-efficacy Vicarious and MALQ (r_s = 0.44, p < *.001*) , Self-efficacy with Motivation (r_s = 0.47, p < *.001*), and Self-regulation and MALQ (r_s = 0.50, p < .001). There were large positive significant correlations of Self-regulation with Self-regulation/Meta-sociocultural (r_s = 0.76, p < 0.001), MALQ Problem-solving (r_s = 0.60, p < 0.001), Self-regulatory behaviours (r_s = 0.75, p < 0.001) and Self-regulation/Meta-affective (r_s = 0.65, p < .001). However, no negative correlations were found. After looking at Table 18, we will reject our null hypothesis that there is no significant correlation between Motivation, Self-Efficacy and Self-Regulation as the p-value was smaller than alpha value .05 (See Table 4.19), as we found significant positive small correlation between Motivation and Self-regulation (r_s = .37, p < .01), medium positive correlation between Motivation and Self-efficacy (r_s = .47, p < .001), and significant small positive correlation between Self-efficacy and Self-regulation. Therefore, we can conclude that the core constructs correlated slightly at Time 2 for the intervention group.

By examining the four tables of correlation matrices, it can be observed that there were more significant (p < .05) and ($r_s \geq 0.25$) correlations between the three variables during Time 2 than Time 1. However, Self-regulation and metacognitive awareness (MALQ) showed a statistically significant correlation (two-tailed) at all time points; T1 among control (r_s = 0.40, p = 0.001) and experimental groups (r_s = 0.42, p < .001), and at T2 among control (r_s = 0.56, p < .001) and experimental groups (r_s = 0.5, p < .001).

Although correlation measures the strength and direction of the relationship between variables (Bryman & Cramer, 1992), it does not indicate causality (Cohen et al., 2018). As such, changes in variables might be attributed to other extraneous or moderating variables, which

might influence both variables to change in tandem. In light of the findings mentioned above, the following conclusions can be inferred. First, self-regulated and metacognitive awareness strategies in listening showed positive correlations at all time points for both groups, albeit the correlation was positively stronger during Time 2 compared to Time 1. This positive correlation aligns with the theory of self-regulated learning where metacognitive awareness is viewed as one of the main constructs that interacts with other affective variables (e.g., motivation) to predict learning outcomes (Zimmerman, 2008). During Time 1, the reported scores of listeners' physiological state (self-efficacy) in the control group was associated with seeking social assistance (e.g., consulting the teacher and friends when encountering listening difficulties). This indicates that those listeners would be at a better physiological state (e.g., feeling more comfortable and less nervous while listening) if they received the required social support from others. However, if learners feel less nervous and more comfortable, then they are more likely to ask for help, but this doesn't indicate causation, i.e., that one precedes the other. Also, with these findings there is likely reciprocity, i.e., that one social support leads to a learner being more comfortable. In addition, the scores reported better meta-affective listening strategies (e.g., trying to relax and avoid nervousness while listening) to be linked with MALQ (planning/evaluation), which means that when those listeners plan ahead, set goals and assess their performance, their meta-affective strategies would also be enhanced positively.

During Time 2, the scores of the same control group showed a positive relationship between self-efficacy and motivation. Although this group did not receive explicit metacognitive strategy instruction; however, this correlation could be the result of the implicit and integrated strategy instruction found in the textbook, or it could be due to the overall development of their L2 linguistic knowledge (i.e., the development of other L2 skills). The scores also indicate a correlation between seeking social assistance and metacognitive awareness strategy. This means that an increase in metacognitive awareness could be affected by an increase in consulting and seeking help from others (and vice versa). The reported scores of source of self-efficacy (verbal persuasion) is linked to both MALQ (planning/evaluation) and MALQ (directed attention). This implies that the more positive feedback those listeners get, the better they would perform in planning, evaluating, and directing their attention when listening in L2.

For the experimental group (Time 1), the scores of MALQ (directed attention) correlated positively with self-regulation (meta-affective listening strategies), which indicates that those listeners are more relaxed and less nervous when they are more focused while listening. Moreover, MALQ (planning/evaluation) correlated positively with self-regulation (seeking social assistance), which implies that getting help from others while listening is associated with planning, goal-setting and self-evaluation for those listeners. Conversely, there was a negative

correlation between self-regulation (meta-sociocultural-interactive strategies) (e.g., improving listening to learn more about the target-language culture) and motivation as well as self-efficacy (vicarious experience). This suggests that listeners do not feel motivated, and they also do not feel confident to learn about the target-language culture even when they see others improve their listening performance. Finally, there was a negative correlation between MALQ (mental translation) and source of self-efficacy (performance outcomes) indicating that listeners do not utilise mental translation when they think about their listening performance at different stages.

The scores of the listeners in the experimental group (Time 2) reveal more interactions between almost all variables. The interplay was mainly evident between self-efficacy and other variables: motivation, self-regulation and MALQ. This implies that when listeners are more confident in their listening ability, they tend to be more motivated and more strategic in their behaviour to listen in L2. It also indicates that their metacognitive awareness and their strategy use would rise as their self-efficacy beliefs rise. There was also a strong positive correlation between self-regulation and motivation, which means that when the listeners are more motivated to listen, they would deploy more listening strategies and exhibit more control over their listening process. More specifically, self-regulation (meta-sociocultural-interactive strategies) was reported to correlate positively with both MALQ and motivation. Furthermore, the self-efficacy (vicarious experience) has greater interactions with self-regulation and MALQ, which points out that the more self-efficacious the listeners, the more self-regulated their listening performance is and the more metacognitively aware they become. However, an important point to mention here is that such positive correlational relationships could be attributed to the experimental group becoming more aware of the listening strategies they used during the intervention; and therefore, found the questionnaires easier to answer compared to the control group.

4.4 Research Question 3 – Which, if any, of the variables (self-regulation, L2 motivation, metacognitive awareness) predicts L2 self-efficacy for L2 listening?

To further evaluate the relationships between the variables and to help answer research question 3: “Which, if any, of the variables (self-regulation, L2 motivation, metacognitive awareness) predicts L2 self-efficacy for L2 listening?”, backward stepwise regression analysis was conducted using SPSS (v28, 2021). Generally, multiple regression ensures the overall fit of the analytic model (variance explained) with the model of reality (Thompson, 2006). This means that inferences can

be drawn (e.g., how changes in an outcome could be multiply caused) to investigate the reality that we believe exists.

Stepwise multiple linear regression is a statistical analysis used to create a model by adding or removing predictor variables incrementally and testing for statistical significance of each independent variable (Thompson, 2006). The reason behind choosing stepwise multiple linear regression is because it allows to determine which of the independent variables (self-regulation, metacognitive awareness, and motivation) has a statistically significant effect on the dependent variable (self-efficacy). To run the analysis, the values of the variables (the composite scores of each questionnaire) were aggregated to create useful summary of the vast amounts of data. The backward elimination method was applied (starting with a full model containing all the variables and removing the least significant variables one at a time until the threshold (stopping rule) is met. The reason for choosing the backward method is to avoid suppressor effects, which refers to reducing the significant effect of two variables due to the influence of a third variable (Field, 2018). The final model was determined by setting the covariate p values to < 0.05 along with the lowest Akaike information criterion (AIC) to decide on the best fit for each statistical model (Akaike, 1974).

4.4.1 Hypotheses

H0; Self-regulation does not predict Self-Efficacy.

H1; Self-regulation significantly predicts Self-Efficacy.

H0; Metacognitive Awareness does not predict Self-Efficacy.

H2; Metacognitive Awareness significantly predicts Self-Efficacy.

H0; Motivation does not predict Self-Efficacy.

H3; Motivation significantly predicts Self-Efficacy.

4.4.2 5.3.2 Assumption Checks

Before running the stepwise multiple regression analyses, the following assumptions were tested:

1) Dependent variable (should be measured on a continuous scale)
2) Two or more independent variables
3) Independence of observations (i.e., independence of residuals): Durbin-Watson statistic. The Durbin-Watson statistic lies in the range 0-4. A value of 2 or nearly 2 indicates that

there is no first-order autocorrelation (See Table 4.20). An acceptable range is 1.50 - 2.50. (Field, 2018).

4) Linear relationship between the dependent variable and the independent variables through visual inspection of scatterplots (See Figure 4.7 Q-Q plots of the study groups). By looking at the Q-Q plots, there are almost linear relationships with these values.
5) No multicollinearity. Multicollinearity occurs when variables are found to have a correlation coefficient of higher than .80, these will be collapsed or eliminated from the analysis (See Table 4.21) (Cohen et al., 2018). The reason behind avoiding multicollinearity is because it could create problems in determining which predictor is accountable for the explanation of the dependent variable along with other calculation issues related to ordinal logistic regression. Multicollinearity can be a concern if VIF value is greater than 10, or the Tolerance is less than 0.1. Tests to see if the data met the assumption of collinearity indicated that multicollinearity was not a concern for all the groups at both time points (See Table 4.22).
6) No significant outliers (high leverage points): not exceeding Cook's Distance.

Table 4.20 Durbin-Watson Test for Autocorrelation

	Autocorrelation	DW Statistic	*p*
Control Group (Time 1)	-0.13	2.19	0.44
Experimental Group (Time 1)	-0.23	2.41	0.10
Control Group (Time 2)	0.01	1.95	0.74
Experimental Group (Time 2)	-0.04	2.07	0.81

Normality Test (Shapiro-Wilk)

	Statistic	*p*
Control Group (Time 1)	0.98	0.56
Experimental Group (Time 1)	0.98	0.51
Control Group (Time 2)	0.96	0.07
Experimental Group (Time 2)	0.97	0.26

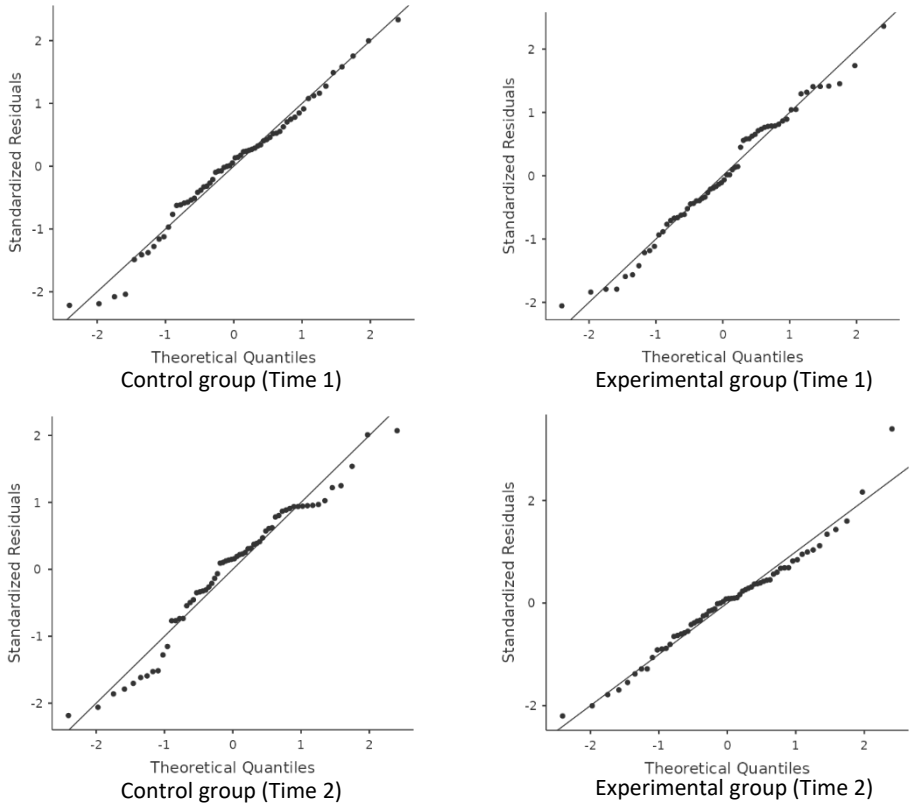

Figure 4.7 Q-Q plots of the study groups

Table 4.21 Collinearity Tests (Correlations)

	Measures	Self-regulation	MALQ	Motivation
Control Group (Time 1)	Self-regulation	1.00	0.44	0.05
	MALQ	0.44	1.00	0.16
	Motivation	0.05	0.16	1.00
Experimental Group (Time 1)	Self-regulation	1.00	0.41	-0.23
	MALQ	0.41	1.00	-0.05
	Motivation	-0.23	-0.05	1.00
Control Group (Time 2)	Self-regulation	1.00	0.58	0.25

	MALQ	0.58	1.00	0.15
	Motivation	0.25	0.15	1.00
Experimental Group (Time 2)	Self-regulation	1.00	0.48	-0.14
	MALQ	0.48	1.00	-0.05
	Motivation	-0.14	-0.05	1.00

Table 4.22 Collinearity Statistics: Tolerance test and variance inflation factor (VIF)

	Measures	**Tolerance**	**VIF**
Control Group (Time 1)	Self-regulation	0.80	1.25
	MALQ	0.78	1.28
	Motivation	0.97	1.03
Experimental Group (Time 1)	Self-regulation	0.78	1.27
	MALQ	0.83	1.21
	Motivation	0.94	1.06
Control Group (Time 2)	Self-regulation	0.63	1.59
	MALQ	0.66	1.52
	Motivation	0.93	1.07
Experimental Group (Time 2)	Self-regulation	0.75	1.33
	MALQ	0.77	1.30
	Motivation	0.98	1.02

Table 4.23 Stepwise Multiple Regression Models (backward elimination) (Control Group/Time1)

Control Group (Time 1)			
	Model 1: Full Model	Model 2	Model 3: Final Model
Covariates			
Self-Regulation	.891		
Metacognitive Awareness	.239	.209	
Motivation	.048	.047	.071
R^2	.079	.079	.053
Adjusted R^2	.031	.047	.038
F	1.655	.019	1.612
df1	3	1	1
df2	58	58	59
p value	.187	.891	.209
AIC	480	478	475

The final model was determined with all covariates p < .05.

df = degrees of freedom; AIC = Akaike Information Criterion.

A backward stepwise regression was conducted to see if any of the variables: self-regulation, motivation and metacognitive awareness, predicted the self-efficacy of the control group during Time 1. Table 4.23 shows the results of regression analysis. The first model contained all the predictor variables and explained 3.1% of the variance in score, *F* (3,58) = 1.65, p = 0.18, adjusted R^2 = .031. The second model excluded one variable from model 1 (self-regulation) and explained 4.7% of the variance in score, *F* (1,58) = .019, p = 0.89, adjusted R^2 = .047. The third model excluded two variables from model 2 (self-regulation and metacognitive awareness) and explained 3.8% of the variance in score, *F* (1,59) = 1.61, p = .209, adjusted R^2 = .038. None of the variables reached statistical significance. Since the p-value is not less than .05 (p = .209), we fail to reject the null hypotheses. In other words, there is not a statistically significant relationships between the three predictors and self-efficacy.

Table 4.24 Stepwise Multiple Regression Models (backward elimination) (Experimental Group/Time1)

	Experimental Group (Time 1)		
	Model 1: Full Model	Model 2	Model 3: Final Model
Covariates			
Self-Regulation	.524		
Motivation	.212	.255	
Metacognitive Awareness	.231	.109	.124
R^2	.067	.060	.039
Adjusted R^2	.018	.028	.023
F	1.380	.410	1.320
df1	3	1	1
df2	58	58	59
p value	.258	.524	.255
AIC	487	485.9	485.3

The final model was determined with all covariates p < .05.

df = degrees of freedom; AIC = Akaike Information Criterion.

Table 4.24 shows the results of regression models in which three variables were set as predictors of self-efficacy for the Experimental group at Time 1. The first model contained all the predictor variables and explained 1.8% of the variance in score, *F* (3,58) = 1.38, p = 0.25, adjusted R^2 = .018. Model 2 presents the results of prediction of self-efficacy by excluding one variable from model 1 (self-regulation) and explaining 2.8% of the variance in score, *F* (1,58) = 0.41, p = 0.52, adjusted R^2 = .028. The third model excluded two variables from model 2 (self-regulation and motivation), and the model fit measures revealed that model 3 explained 2.3% of the variance in score, *F* (1,59) = 1.32, p = .255, adjusted R^2 = .023. None of the variables reached statistical significance. Since the

p-value is not less than .05 (p = .255), we fail to reject the null hypotheses. In other words, there is not a statistically significant relationships between the three predictors and self-efficacy.

Table 4.25 Stepwise Multiple Regression Models (backward elimination) (Control Group/Time2)

	Control Group (Time 2)		
	Model 1: Full Model	Model 2	Model 3: Final Model
Covariates			
Self-Regulation	.968		
Metacognitive Awareness	.497	.390	
Motivation	<.001	<.001	<.001
R^2	.273	.273	.264
Adjusted R^2	.236	.249	.252
F	7.277	.002	.750
df1	3	1	1
df2	58	58	59
p value	<.001	.968	.390
AIC	464	462	461

The final model was determined with all covariates p < .05.

df = degrees of freedom; AIC = Akaike Information Criterion.

Results of backward stepwise regression analysis for the Control group (Time 2) were presented in Table 4.25. The first model contained all the predictor variables and explained 23.6% of the variance in score, *F* (3,58) = 7.27, p <.001, adjusted R^2 = .236. The second model displays excluded one variable from model 1 (self-regulation) and explained 27.3% of the variance in score, *F* (1,58) = .002, p = 0.968, adjusted R^2 = .237. The third model excluded two variables from model 2 (self-regulation and metacognitive awareness) and explained 25.2% of the variance in score, *F* (1,59) = .750, p = 0.390, adjusted R^2 = .252. The results showed that motivation was the only significant predictor of self-efficacy in all three models, with values of (B = 1.724, t = 4.642, *p* < .001) in model

3. That is, the more students are motivated, the more they feel self-efficacious, which means that motivation predicts self-efficacy. This also indicates that self-regulation and metacognitive awareness failed to predict self-efficacy among this group. By comparing the values of AIC for each model, model 3 has the lowest AIC, which offers the best fit.

Since the p-value is less than .05 ($p < .001$), we reject the third null hypothesis. In other words, there is a statistically significant relationship between motivation and self-efficacy.

Table 4.26 Stepwise Multiple Regression Models (backward elimination) (Experimental Group/Time2)

	Experimental Group (Time 2)	
	Model 1: Full Model	Model 2: Final Model
Covariates		
Metacognitive Awareness	.549	
Self-Regulation	.009	.001
Motivation	.001	.001
R^2	.262	.257
Adjusted R^2	.224	.232
F	6.854	10.21
df1	3	2
df2	58	59
p value	<.001	<.001
AIC	415	413

The final model was determined with all covariates $p < .05$.

df = degrees of freedom; AIC = Akaike Information Criterion.

Finally, the backward stepwise regression, $\alpha = .05$, was used to examine the significance of self-regulation, metacognitive awareness, and motivation in predicting self-efficacy in Experimental group (Time 2) in addition to comparing the AIC values (See Table 4.26). AIC indicates that the final model has the lowest AIC, which offers the best fit (Baguley, 2018). Moreover, the final

model (model 2) presents the results pertaining to the prediction of self-efficacy wherein self-regulation and motivation were set as predicted variables. The model as a whole was able to significantly predict self-efficacy in Experimental group (Time 2): F (2, 59) = 10.21, p = <.001, R^2 = .257. The R^2 (.257) value indicated that approximately 25.7% of variations in self-efficacy is accounted for by the linear combination of the predictor variables (self-regulation, and motivation), which means that self-regulation and motivation predict self-efficacy.

Table 4.27 Coefficients of Stepwise Multiple Regression Models (Experimental Group/Time2)

Model		Unstandardized (B)	(t)	Sig. (p)
1	(Constant)	21.111	1.465	.148
	Metacognitive Awareness	.070	.603	.549
	Self-Regulation	.418	2.697	.009
	Motivation	.880	3.399	.001
2	(Constant)	24.947	1.939	.057
	Self-Regulation	.463	3.418	.001
	Motivation	.882	3.429	.001

Dependent Variable: Self-Efficacy

In the final model, self-regulation, and motivation were statistically significant with motivation (B = .882, t = 3.429, p < .001), accounting for a higher contribution to the model than self-regulation (B = .463, t = 3.418, p < .001). Metacognitive awareness did not explain any significant variation in self-efficacy. The values of all predictor variables are shown in Table 4.27.

The final predictive equation was:

Self-Efficacy = 24.947 + .882 (Motivation) + .463 (Self-Regulation)

Motivation: The positive slope for motivation (.882) as a predictor of self-efficacy indicated that there is about .882 points increase in self-efficacy for each 1-point increase in motivation while holding self-regulation in control. In other words, self-efficacy tends to increase as motivation increases, in other words, motivation predicts self-efficacy.

Self-Regulation: The positive slope for self-regulation (.463) as a predictor of self-efficacy indicated that there is about .463 points increase in self-efficacy for each 1-point increase in self-regulation while holding motivation in control. In other words, self-efficacy tends to increase as self-regulation increases. This implies that self-regulation predicts self-efficacy.

On the basis of above results, we will reject our first null hypothesis that self-regulation did not predict self-efficacy. Also, we will reject third null hypothesis that motivation did not predict self-efficacy, as we found significant predictions. However, we will accept our second null hypothesis that metacognitive awareness did not predict self-efficacy.

4.5 Research Question 4 – What self-regulatory behaviours did the learners employ during the L2 listening strategy-based instruction?

To answer research question 4 "What self-regulatory behaviours did the learners employ during the L2 listening strategy-based instruction?", the Zimmerman and Moylan's (2009) three-phase cyclical model of self-regulated learning (mentioned in Section 2.4.4) and Oxford's (2017) strategic self-regulation model of language learning [S2R] (mentioned in Section 2.5.6) will be adopted as frameworks to examine the self-regulatory behaviours of L2 learners and to understand the development of L2 listening skill through metacognitive monitoring and strategy use. The Zimmerman and Moylan's model describes the reciprocal interaction between learners' self-regulatory behaviours in relation to cognitive and affective processes through three phases: forethought phase, performance phase and self-reflection phase. Results from the Experimental Group during these three phases are presented in Table 4.28. These results will be further discussed and demonstrated with excerpts from the teacher's diary. The Oxford' [S2R] model places more emphasis on the learners actively utilizing effective learning strategies during the process of learning a second language. Additionally, the model aims to provide an explanation of the process of learning a second language by considering various aspects such as self-regulation, strategies, metastrategies, metaknowledge that underlies the metastrategies, and tactics from multiple dimensions. Similar to the Zimmerman and Moylan's model (2009) of three-phase cyclical model of self-regulated learning, Oxford's (2017) strategic self-regulation of language learning model [S2R] tracks learners' self-regulatory behaviours over three main SRL task phase (forethought, performance, and self-reflection). However, the S2R model has a more comprehensive approach to self-regulatory behaviours because it ties up the sociocultural (e.g., relationships with the teacher and peers, physical resources, cultural beliefs, and values) with psychological aspects of SRL (e.g., self-beliefs, agency, autonomy, mindset, resilience, and hope).

It should be noted that these behaviours were based upon the teacher's observations during the L2 strategy instruction inside the classroom along with other listening documents. The teacher's diary describes in depth which strategies were introduced to the learners on a weekly basis, and how learners were guided to implement them during the listening activities. However, the teacher's diary can be criticised for its ineffectiveness in exploring the mental strategic processes

that learners undergo while performing the listening tasks; each individual would deploy the strategies differently or orchestrate different strategies from one another. This implies that learners could have employed other strategies that were not reported in the teacher's diary. Therefore, one of the drawbacks of teacher's diary is the limited opportunities for learners to accurately verbalise their cognitive internal processes while listening.

Table 4.28 Learners' Self-Regulatory Behaviours during L2 Listening Strategy Instruction

		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12
Forethought Phase	Task Analysis								√	√	√	√	√
	Goal Setting		√			√	√		√	√	√	√	√
	Strategic Planning	√	√							√	√	√	√
Performance Phase	Task Strategies	√	√	√	√	√	√	√	√	√	√	√	√
	Problem-Solving												
	Help-Seeking			√	√		√	√			√	√	√
	Metacognitive Monitoring	√	√	√	√	√	√	√	√	√	√	√	√
			√	√	√	√	√	√	√	√	√	√	√
Self-Reflection Phase	Self-Evaluation			√				√					√
	Strategy Use												
	Reflection			√			√	√	√	√		√	√

4.5.1 Forethought Phase

The forethought phase (an initial phase which occurs before performing a task) involves the task analysis, which includes goal setting and strategic planning. Task analysis is a cognitive process of planning the performance phase. It also requires self-regulating learners to analyse the task by understanding its nature and the purpose behind performing it. It also requires assessing the learners' capacity to perform it. For example, some learners may find summarizing and note-taking more difficult than MCQs. Approaching the listening tasks strategically was one of the main objectives of the treatment. Before analysing the task, the students were introduced to a variety of listening strategies to help them plan ahead. Prior to that was an attempt to raise students' awareness about the strategy use (e.g., why do we need to implement those strategies? How can we deploy them effectively to comprehend meaning?). After that, students were introduced to the list of cognitive/metacognitive listening strategies and then were left to decide on their own about how to utilise those strategies to perform the listening task. This is an excerpt from the teacher's diary taken from session one:

"Next, I introduced students to the listening strategies and explained to them that such strategies can also be applied in their L1 to improve their listening skill, especially with difficult listening passages. Then, I shared the 'List of Listening Strategies' and went over them one by one to explain each strategy to them. I asked the students to keep this list and use it as a reference for each listening activity in the future. I noticed that the students had no idea about these listening strategies, and that all the strategies were new to them although they may have applied them automatically while they listen."

Building strategy knowledge allows and encourages the students to plan to approach the task strategically. This step is also crucial in Oxford's (2017) S2R model as it is one of the dimensions of task analysis. Because the majority, if not all, of the students were unfamiliar with strategy use; they either did not know about them or implemented them unconsciously, it was vital to model using those strategies first before asking the students to deploy them. In this regard, my role was:

"In order to prepare students for the listening activities, I began by modelling the strategy use by demonstrating to them how to implement listening strategies when answering comprehension questions of a listening passage while verbalizing the listening comprehension process. This stage is very crucial to help students learn by observing (observational learning) the process of orchestrating bottom-up and top-down processing in listening as well as the integration of cognitive and metacognitive listening strategies."

Next, another modelling was demonstrated to the students to explain to them the process of task analysis:

"The modelling of first listening activity was from Unit 1/lesson 1. I explained that the listening task was Understanding a Personal Introduction. The listening passage was about Ozan, who talks about his life in London. He mentioned personal information, such as his nationality, marital status, his neighbours, and interests. I told the students that they are required to listen and fill in the missing information about Ozan."

Verbalising the task analysis can help students understand the goals/objectives of the listening task, the timing they would need to complete it, and assess the complexity of the task and, thus, decide on which strategies would be more effective to execute the task. Moreover, understanding the task demands and deciding on the appropriate strategies to meet those demands is an important aspect of self-regulated learning. It should be noted here that the mere knowledge of strategies and/or the number of strategies learners can deploy is not enough to guarantee the success on a specific task. Oxford et al., (2004) argued that the frequency of strategy use does not necessarily indicated success in completing a particulars task. Instead, L2 learners who are more successful tend to utilize strategies that are appropriate for the specific task at hand. Conversely, less successful learners tend to use strategies impulsively and without consideration for how well they fit the task's demands. Therefore, task analysis is considered as important as strategy knowledge and strategy use since both are inseparable requirements to successfully accomplishing a task.

One of the interesting observations during the tasks analysis process with each listening activity is that the students did not spend too much time in analysing the task; they only spent seconds and sometime few minutes to run the analysis. Part of that could be related to the simplicity of listening tasks in the textbook (A2/ Elementary Level). However, towards the end of the intervention, students were given more complex and longer listening passages when introduced to the second textbook (B1 / Intermediate Level). This could explain why they showed more engagement in task analysis towards the end of the intervention (week 8 onwards) rather than at the beginning of the intervention (See Table 4.28).

Learners also need to establish goals and plans as of how to complete the task by applying goal setting and strategic planning. To achieve this, the 'Guide for Listening' (adapted from Vandergrift & Goh, 2012) was used during the intervention. This guide helps students list their listening predictions. This had been implemented since week 2:

"My next objective was to help students set listening goals for themselves. To achieve this, I shared Listening Goal-Setting from Guid for Listening worksheets and asked them to describe actionable steps to get to their listening goals."

In terms of goal setting, it was observed that different students set their listening goals differently. While some students went beyond task requirements (e.g., they set long-term goals for continuous listening development), others set goals only for the task at hand, and the third type did not address the task requirements at all and chose to focus on something else. However, the purpose of goal setting in this intervention is based on self-assessment and needs analysis. This means that after each listening activity; students were guided to complete the Listening Goal-Setting sheet based on their performance on the current listening exercise. They were asked to reflect on their performance first, assess their strategy use, and address any listening difficulties they may have encountered during the listening process. Then, they were asked to set new goals to overcome those listening obstacles and improve their listening performance for the next listening activity. As the following excerpt reveals:

"Finally, students will evaluate their performance, strategy use, and judge their overall execution of the listening task. They will set goals for the next listening based on their self-evaluation. My role was to observe and evaluate the students' performance during the listening stages."

When scaffolding the students' goal setting, it was essential to guide them on how to set those goals for themselves. For this purpose, another activity was later added:

"Next strategy instruction activity reflects on students' goal setting from weeks (2 & 3). I asked students to completely select their own listening goals and ensure that the goals are specific, measurable, and connected to learning listening. This will help students feel a sense of agency and choice over their learning process."

In order to address the new goals, strategy planning is required to ensure that those goals are specifically fulfilled. During the forethought phase, strategies can play dual roles. They can either regulate the behaviours; how to strategically execute a listening task, or they can regulate the learners' emotions while performing a task (Oxford, 2016). Examples of strategies related to self-regulatory behaviours include task analysis, goal setting, orchestrating a broader spectrum of cognitive listening tactics to infer, predict, contextualize, visualize, elaborate, or to reconstruct meaning of the oral text, linking what has been heard to related questions while listening. On the other hand, examples of meta-affective listening strategies aimed at regulating the emotions while listening, which include, regulating nervousness when listening, becoming more motivated to complete or trying to enjoy the listening tasks. For this reason, before teaching the listening

strategies, a primary step was to acquaint students with fundamental self-concepts such as self-efficacy, self-regulation and motivation. The following excerpt highlights this:

"I went on to explain important concepts from this intervention. I started off by explaining the meaning of 'metacognition' and how it is related to L2 listening. Also, I explained the term 'self-efficacy' and how it is related to L2 listening development. I also clarified the relationship between listening strategies and self-efficacy (Why are we learning about listening strategies?). Being explicit about the purpose of teaching these strategies can help boost students' self-efficacy and consequently their motivation."

Afterwards, the self-regulatory strategies were introduced to the students prior to performing the listening task. One example from the excerpts when working on the listening activity from Unit 1/Lesson 1 was:

"I started the task by demonstrating the importance of pre-listening strategies: (a) prediction, which is carried out before listening and allows the learners to predict what they are going to hear. Then, when they do the actual listening, they can either confirm or reject their predictions. Another pre-listening strategy is (b) advance organization, which is related to clarifying the objectives of the listening task and proposing the appropriate strategies to carry out the task. After the pre-listening stage, I demonstrated how to apply directed and selective attention, and the difference between each. Finally, after completing the task, I emphasized the role of self-evaluation to assess the listening difficulties and how to overcome them in the future."

It was observed that teaching those strategies in a clear and direct manner can increase students' ability to self-regulate and control their listening performance especially at the early stages of strategy instruction. Providing clear instructions about strategy use has to be accompanied with careful scaffolding. This process was explained in the following excerpt:

"To help scaffold students' use of listening strategies, I distributed the 'Guide for Listening' (adapted from Vandergrift & Goh, 2012). This guide helps students list their listening predictions. After writing down their predictions, students can discuss their predictions with a partner before they start the first listening. After that, they listen again to verify their comprehension and tackle any discrepancies between their comprehension and their partners. Finally, they listen for the third time after group discussion and read the script while listening. The guide also allows students to write down their reflection (evaluation) of their listening performance and to set goals for the next listening task."

As mentioned in the previous excerpt, students can start by making predictions about the listening material and discuss them with a partner. Then, they can listen to the material again to verify their comprehension and resolve any discrepancies with their partner if needed. Lastly, they can listen to the material for the third time while reading the script to reinforce their understanding and double-check their answers. The Listening Guide Sheet also allows students to write down their reflection (evaluation) of their listening performance and to set goals for the next listening task. Throughout the consistent application of this Listening Guide Sheet, it was observed that students' goal setting has improved especially towards the last few weeks of the strategy instruction as well as their overall strategic planning.

What was also discovered during utilising listening strategies to complete listening tasks was students' familiarity with some strategies and unfamiliarity with others. For instance:

"It was noticed that the Guide for Listening was a bit difficult for students to complete. Most, if not all, of them never tried to make predictions about the listening beforehand. They were taught how to activate their prior knowledge (schemata) by raising few questions about the topic or explaining new key words by the teacher. This method was also adopted in many English classes in High schools. However, planning and evaluation seemed to be new listening strategies for the students that they needed further training to master them. Another observation was related to mental translation... I noticed that some of them tried to translate words while listening in order to get the correct answer..."

During week 12, the listening task from the textbook (Understanding a radio programme about ideas which could improve the world: Unit 11, p.143) was modified following J. Willis (1996), which is a framework for running task-based lessons. At the beginning of the task, the aim behind the task was explained to the students explicitly. This would help them understand the task characteristics and create a representation of how it should be carried out. Then, the listening topic was introduced by activating schemata/contextualisation with the whole class. The task-based listening process was also explained to students to help them come up with strategic plans and goals to perform the task. They were told to work in pairs to prepare a report (they were given the choice to create a poster or draw visuals, if they felt necessary, to be accompanied with the report) and share their results with the class and receive feedback on their work. Finally, they were asked to exchange their reports with each other to gain more benefits. It was observed that students used several listening strategies including planning, advance organization, selective attention, comprehension monitoring and double-check monitoring. Also, allowing students to collaborate and work in pairs to accomplish this task and then share their work for feedback was beneficial to teach them how seek social assistance strategies in listening. When students consult

the teacher or ask their classmates whenever they have questions related to listening strategies or when they carry out a task, this would also foster their self-efficacy through receiving verbal persuasion, which is one of the main four sources of self-efficacy (Bandura, 1997).

4.5.2 Performance Phase

The performance phase refers to the actual learning phase. It is divided into two types of processes: Self-control, which consists of task strategies set in the forethought phase, besides problem-solving and help-seeking. Even though self-control includes other processes, such as self-instruction and self-consequences; however, those processes were internal processes and posed a critical challenge to be addressed in the teacher's diary. The second process is the Self-observation, which includes metacognitive monitoring. This meta-learning process is a crucial element in the continuous learning improvement.

To keep a record of learners' application of task strategies, the 'Track your Listening Strategic Plan' form was used by sharing a Google spreadsheet with them, which contains the learners' names and the names of the listening strategies. Students were instructed to complete a listening activity in pairs then tick the strategies they have deployed and add any additional comments they would like to share. This activity was very interesting for the students and important at the same time because it showed them how to orchestrate different types of strategies to build understanding. It was also important for the teacher because it allowed the teacher to get deeper insights into the listening developmental process of the students. The spreadsheet was shared later with the whole group to discuss the students' strategy use. Overall, the data gathered regarding the application of listening strategies from the 'Track your Listening Strategic Plan' and the teacher's diary showed that at the beginning of the intervention, the learners did not apply many metacognitive strategies as compared to cognitive strategies.

It was also noticed that no student deployed planning and evaluation strategies to their listening process (both are metacognitive strategies) during Weeks 1 and 2. An excerpt from week 2 highlights:

"However, planning and evaluation seemed to be new listening strategies for the students that they needed further training to master them"

"… I noticed that students rarely planned ahead before they listened 'planning strategy' because they did not know about the strategies and how effective they could be to improve their listening skill. However, they started to deploy 'prediction' after being introduced to it last week…"

Moreover, it was observed that the majority of students relied on inferencing and selective/directed attention while listening. Many students also relied on mental translation during the listening process especially when they encounter new or difficult words.

"… most students felt lost during the middle of the listening if they failed to comprehend the meaning of new words. I noticed that some of them tried to translate words while listening in order to get the correct answer. Otherwise, they felt like they did not understand anything from the listening passage"

Although the students were familiar with the 'inferencing' strategy and even deployed it regularly, during week 6, the inferencing strategy was selected to provide students with a more comprehensive and in-depth understanding of it due to its vital role in comprehending the listening texts. In this regard, the first segment of the lesson was devoted to clarifying this strategy as explained in the following excerpt:

"The lecture began with brining attention to and raising awareness of the role of 'inferencing' in listening comprehension. Inferencing is a listening strategy through which students can guess the meaning of the passage by analysing textual and contextual information or through activating prior knowledge to compensate for missing information. However, I had to explain to students that inferencing relies upon several factors to be effective. For example, if the student is unfamiliar with a specific accent, s/he may make wrong inferences, which can have a negative impact on understanding for L2 listeners."

As an EFL learner myself, I even shared my personal experience with the student when I used to make incorrect inferences sometimes as a result of my inability to comprehend difficult accents or due to the speed of speech:

"I later shared my own experience as an L2 listener by recalling how I made wrong inferences due to unfamiliar accent when I misheard the phrase 'Sunday dinner' for 'Sunny Dillon'. The accent of this phrase was a Southern Atlanta/Georgia accent. In the syllable codas of that African-American Vernacular English (AAVE) regional dialect, the deletion of word-internal alveolar stops /d/ and /t/ results from cluster simplification to achieve gestural economy (this is why 'Sunday' sounds like 'sunny'). Another feature is the deletion of /r/ after vowels. In AAVE, /r/ is sometimes deleted at the end of a word if preceded by a vowel (this explains why 'dinner' sounds like 'dillon' and 'beer' sounds like 'biyuh'). I played the video on YouTube to let them hear the misheard phrase 'Sunday dinner' pronounced by an African-American native speaker of English. The students felt really

engaged with my story and asked me questions about how I came to develop my listening comprehension."

Other listening strategies were introduced to students throughout the intervention, and students exhibited good performance of those strategies until they reached a satisfactory mastery towards the end of the intervention (weeks 10, 11, 12) especially with metacognitive strategies, such as planning, advance organization, evaluation and self-management. As for notetaking, it was taught to students during week 9; however, some students already deployed it from week 6, when the listening passages started to become longer and more cognitively demanding (See Table 4.29).

Starting from weeks 3 and 4, the students were instructed to participate in problem-solving tasks. For example, an activity performed in the fourth week involved incorporating problem-solving skills:

"… After the students shared their answers, I picked one of the listening difficulties, which was speaker's accent. I asked the students to work in pairs and share their problem-solving process to overcome this difficulty …"

Seeking help from peers and the teacher while listening was observed from week 1 (as mentioned in the Forethought Phase). The use of stages of instruction and underlying cognitive and metacognitive processes for generic listening activities (Adapted from Vandergrift, 2004; Zeng & Goh, 2018; Zimmerman & Moylan, 2009) (See Appendix M) has allowed students to work in pairs and groups to share ideas and thoughts. Students were able to seek help from each other and get feedback from the teacher at all listening stages (pre-listening, first verification, second verification, final verification, and post-listening). When learners were seeking help from each other and receiving guidance from the teacher during the pair and group work, such collaborative activities have positively influenced their motivation and attitudes towards learning L2 listening. According to the Strategic Self-Regulation (S2R) Model, maintaining positive relationships with more capable others is linked to the sociocultural dimension of S2R model. It suggests that learners who participate in collaborative learning activities with their peers to exchange ideas and receive feedback can cultivate a sense of belonging and social support, ultimately aiding in the development of their self-regulation skills. However, during the pair work listening activities, it was observed that more proficient listeners were more engaged and active in carrying out the tasks compared to low proficient listeners. This is very common among Saudi EFL students especially those with low English proficiency skills. Such students tend to deploy avoidance and refusal strategies; they tend to use strategies that hinder their learning, such as self-handicapping to avoid engaging in the task (Oxford, 2016). Self-handicapping is a type of self-regulation that aligns with the learner's desire to avoid learning or task engagement. However, it is important for

learners to choose appropriate goals that prioritize learning and avoid strategies that impede their progress. One way to encourage low English proficiency students' participation was to create a safe and supportive learning environment as possible where all students feel comfortable to take risks and make mistakes without fear of being judged or ridiculed. This can be achieved through establishing clear expectations, providing positive feedback, and creating opportunities for collaboration and social interaction. During the early stages of the intervention, scaffolding activities and providing additional support to struggling students was more required until those students get used to making effective communication and express their ideas clearly.

An example of seeking help from peers was noticed during week 3 at the pre-listening stage:

"Another pair mentioned that they faced difficulties at the 'prediction' stage because they lacked prior knowledge about the topic 'Astronauts', which required excessive cognitive effort of thinking and guessing. However, they said that the listening was easy and clear, and they were able to answer the activity questions correctly and verify their answers after the class discussion, in which the whole class participate in the reconstruction of the main points and relevant details".

Table 4.29 Learners' Task Strategies during L2 Listening Strategy Instruction

Self-Regulated Behaviours		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Metacognitive Strategies	Planning										√	√	√
	Advance Organization										√	√	
	Selective Attention	√	√		√	√	√	√	√	√	√	√	√
	Directed Attention	√	√		√	√	√	√	√	√	√	√	√
	Comprehension Monitoring		√	√	√	√	√	√	√	√	√	√	√
	Double-Check Monotiling		√	√	√	√	√	√	√	√	√	√	√
	Rhetorical Organization			√	√	√					√	√	√

Self-Regulated Behaviours		Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
	Evaluation						√		√	√	√		√
	Self-Management										√		√
Top-Down (Cognitive) Strategies	Prediction	√	√				√	√	√		√	√	√
	Inferencing	√	√		√	√	√		√	√	√	√	√
	Elaboration		√			√			√		√		√
Bottom-Up (Cognitive/ Decoding) Strategies	Mental Translation	√	√										
	Paraphrasing	√		√				√		√	√	√	
	Notetaking						√		√	√	√	√	√

The self-management strategy is especially important because during the performance phase, learners can utilize strategies to manage their emotions and motivation to complete the task. For instance, if the learner becomes anxious or discouraged due to the task's complexity, strategies can help maintain a positive mindset to continue the task. Alternatively, if the learner finds the task uninteresting or meaningless, strategies can assist in overcoming such attitudes and bolstering motivation to persist with the task (Oxford, 2016).

Group discussions about listening strategies on weekly basis were one of the valuable tools to help students assess and reflect on their strategy use. These regular discussions offered an opportunity for the students to compare and contrast the effectiveness of different strategies and to gain insights into strategies they may not have previously considered.

In a group setting, students shared their experiences with specific strategies and provided feedback to one another on the success or challenges they encountered when employing them. This type of discussion also helped students to identify areas where they may need to adjust or modify their strategies to better suit their individual learning needs (Oxford, 2016). For instance, during week 4, the session started with a strategy group discussion:

"The lesson started with a warm-up activity aimed at facilitating whole group discussion of strategy use. I raised few discussion questions, such as 'Which strategies have you been deploying the most? And why?' and 'Would you reflect on your answers on the Guide for Listening in terms of evaluation and goal setting?' and 'Can you think about the difficulties you have encountered with deploying listening strategies?' After the students shared their answers, I picked one of the listening difficulties, which was speaker's accent. I asked the students to work in pairs and share their problem-solving process to overcome this difficulty. One of the students said that she would ask the person to repeat what s/he said again. Another student suggested getting exposed to a range of varieties of English accents. Students were encouraged to share their answers with the rest of the class while the teacher was monitoring and giving feedback when needed."

Later, during week 7, another strategy groups discussion was conducted at the beginning of the session:

"I started the lesson with a comprehensive group activity to aid open discussion around different learning and revision listening strategies. Through brainstorming different listening strategies and techniques to listen, students were able to understand a variety of different listening strategies and which strategies are best for them to deploy while listening and be confident in using them. Students are encouraged to share the difficulties they faced while deploying these strategies and discuss this with their peers and try to find out ways to overcome these difficulties. My role was to

lead and monitor this discussion and give students more insights into how to effectively use listening strategies as well as how to activate metacognitive awareness."

Another example of strategy group discussion from week 8:

"The lesson started with a comprehensive group activity to aid open discussion around different learning and a revision of listening strategies. First, I played a recording from the new lesson and asked students to try and answer the comprehension questions. Then, I asked them to think about their thinking by asking 'Describe how you arrived at your answer' 'Think-aloud'. Then, I surveyed the class by asking: 'How many people agree with deploying listening strategies? Which strategies are more effective than others? Through leading and monitoring this discussion and by giving students more insights into how to effectively use listening strategies as well as how to activate metacognitive awareness, I was able to elicit some interesting answers regarding students' perceptions about listening strategies and their awareness of the role of strategies to develop their listening skill."

Based on the previous observations from the teacher's diary, it was found that the importance of strategy group discussions lies in their ability to help students assess and reflect on their strategy use in a collaborative and supportive environment, leading to more effective listening learning outcomes.

4.5.3 Self-Reflection Phase

The self-reflection phase includes two processes: self-judgement (cognitive) and self-reaction (emotional). The data collected during this phase was only concerned with the cognitive side of self-reflection, which is self-evaluation and strategy use reflection. The role of self-evaluation and its role in assessing and overcoming listening difficulties was emphasized to students from week 1. One of the main observations during the intervention was that students almost never evaluated their listening performance prior to the intervention.

"… It was also noticed that students rarely evaluated their performance after the listening task. I asked them if this is the case with other skills (reading, writing and speaking), they answered 'yes', they do not self-evaluate their performance when learning L2 because they did not know how to self-assess their own performance. The lack of self-evaluation has led to the lack of self-reflection and the difficulty to set goals for the listening in the future…"

Therefore, one of the challenges faced during the intervention was to teach students how to self-evaluate their performance and compare their self-observed performance against some standard.

During weeks 3, 7 and 12, students were asked to complete the Listening Self-Evaluation sheet to help them self-assess their performance formally at different stages of the intervention. From their responses, it was noticed that by week 12, they were able to identify and tackle listening issues more precisely. For example, one of the respondents replied to the ‘‘I can guess the meaning of unknown words from the context’ by saying:

“If the topic was familiar to me, I can usually guess the meaning of unknown words more easily, but if it was unfamiliar or fast, it will be hard…”

Oxford (2016, p. 73) stated that ‘self-reflection allows (re)considering self beliefs in light of the task. These could include situational self-esteem, a high-low assessment of competence and worth in a given area, such as language learning’. This indicates that reflective students may naturally engage in self-reflection after completing a significant task. In doing so, they can re-evaluate their self-esteem in light of their performance and any challenges they encountered. For example, a learner who struggled with a listening comprehension task may reconsider her self-beliefs about her listening abilities and how these beliefs may impact her future performance in L2 listening.

In addition, during the self-reflection process, the learners may also make attributions for their task success or failure. This means that they may analyse the potential factors that contributed to their performance, such as the effectiveness or appropriateness of the strategies they employed, their motivation and engagement levels, the task's complexity level, or any external factors that may have impacted their performance. However, the causal attribution, which is one of the components of self-judgement was not measured in this analysis; rather, it was measured by another data collection tool, which is the semi-structured interview, because it required a verbalisation of internal thoughts.

4.6 Research Sub-Question 4a – How did the students perceive the listening strategies instructed in hybrid learning: their strategy use, and their preferences in terms of L2 listening instruction?

The semi-structured interviews were revisited to come up with themes related to students’ perceptions of the listening strategies instructed in hybrid learning; their understanding and employment of listening strategies, and their preferences in terms of L2 listening instruction. After careful readings of the interview transcripts, the themes were identified, and categories were created. Two main coding categories emerged that comprised all the pertinent variables are: listening strategies and listening instruction. The rest of the data were coded within these two

main categories to create the remainder sub-categories. All the transcripts were reviewed to verify the themes and categories by an applied linguist to ensure the reliability of the analysis. The discrepancies were further discussed to be agreed upon.

4.6.1 Listening Strategies

4.6.1.1 Knowledge of Listening Strategies

When each participant was asked "Before we started this course, and before I explained to you the different listening strategies and their roles is developing the listening skill. How much were you aware of the role of strategies in listening?", five participants reported that they did not have prior knowledge about listening strategies although many of them deployed those strategies automatically. This indicates that even though those strategies were implemented during their listening process; however, the students did not know about the strategy's types, names, and specific roles of each one of them separately. For example, P2 said that although she knew slightly about those strategies and their roles in improving the listening comprehension, but her knowledge was quite limited. She said:

'Yes, but not that much ... I know that all these strategies help with the listening'

4.6.1.2 Strategy Use

a) Strategies during the Intervention

To probe into students' strategy use during the intervention, each student was asked: 'Do you think you employ listening strategies effectively during listening activities?'. Their answers also confirm utilizing different listening strategies during the listening activities. For example, P5 and P6 said, respectively:

'Yes. I learned a lot about strategies and their roles in listening'
'Yes. They were very effective'

b) Overall Use of Strategies

After the intervention, students were asked about the general learning gains of listening strategy instruction. They all agreed that they benefited greatly from the designed strategy instruction throughout the semester as it has also raised their awareness of the strategy use and its effectiveness in improving their listening skill.

R: *'Throughout this semester, you have been introduced to some listening strategies which we tried to implement together in our listening process. Were the strategies effective for you?'*

P4 said:

'Yes, they were very useful. I applied some strategies today and they made the listening much easier'

And P5 mentioned:

'Yes. Although I didn't apply all the strategies we took. I am already familiar with some to them but learning about listening strategies helped me use the ones I know more effectively'

She also added:

'Strategies can improve my performance because strategy instruction will raise my awareness regarding strategy use and will make me use them unconsciously'

4.6.1.3 Strategies and Self-Efficacy

Regarding students' perceptions of self-efficacy and motivation in relation to strategy use, five participants agreed that employing listening strategies would enhance their self-efficacy (confidence) and motivation to listen in English. However, one participant disagreed by saying that this would depend on the individual who is employing those strategies.

R: *'Do you think employing listening strategies would enhance your self-confidence and motivation to listen in L2?'*

P3 responded:

'It depends on the person'

It should be noted, however, that P3 was a less-skilled listener compared with the other five participants.

4.6.2 Listening Instruction

4.6.2.1 Listening Instruction in Hybrid Context

Due to the sudden shift from face-to-face (F2F) teaching into hybrid learning, the semi-structured questions were modified to add a question in the post-test phase (Time 2) to elicit more information concerning students' experience with both modes of teaching. All the participants preferred the F2F learning environment over online learning. For example, when the researcher asked:

R: 'Can you describe the experience of the transition from face-to-face to hybrid classes. Especially with learning listening comprehension?'

P5, who was the leader of this experimental group, explained that there were more benefits and gains in F2F learning than online learning. However, she also gave credit to splitting the groups into halves to increase the physical space between students and to keep the students safe during the post-pandemic period. She responded:

'… although it was more comfortable for me to attend online, but it is always more beneficial to learn face-to-face. Also, when the group was split into halves, it was more convenient for us because the classroom is not enough for all of us …'

She also added:

'.. when the teacher is in front of you inside the classroom, this forces you to concentrate. At home, there are many distractors ...'

P4 also agreed with this by saying:

'When I am online, the bed tempts me to sleep. Also, I can't ask questions when learning online unlike with face-to-face it's easier to raise questions any time. The communication is easier'

Similarly, P1 said:

'I prefer face-to-face because when attending online, I get busy with other things, and I don't concentrate well unlike when I learn face-to-face'

Other than understanding and focusing better during the F2F learning, P2 added:

'face-to-face is better. I feel face-to-face has more listening vibes and better group work inside the classroom'

4.6.2.2 Specific Aspects of Listening Instruction

All six participants were also asked about their learning experience during the intervention. More specifically, some interview questions tapped into their views concerning the specific designed activities. Such as, the use of native speakers of Arabic videos to raise awareness regarding different accents, the use of Layan's video to promote observational learning, and the use of scripts to read while listening during the third verification stage of listening activities.

R: 'Would you prefer using the Hasawi lady video to raise awareness about strategy use and how to deploy listening strategies to understand different accents or would you prefer using a native's

video (i.e., difference between American and Australian accents)? Would you prefer a video from the same culture (Saudi) or authentic materials?'

P2: 'I guess to learn better; it has to be native'

P1: 'learning about English accents is better'

Four of the participants preferred watching and listening to English instead of Arabic. Two of them did not give their opinions, however, they said those videos were generally helpful to learn more about accents.

All six participants liked Layan's video, and some said that they benefited greatly from watching someone perform the listening task and apply the strategies while verbalising the process.

As for reading the scripts while listening, three participants preferred reading scripts while the other three did not although one of them admitted that it helped her when she struggled with a question, but she did not prefer it.

R: 'Okay, moving to the next question. Did you like reading the script while listening or did you find it unnecessary?'

P2 mentioned:

'Yes. I liked reading the scripts, but I felt tired reading the long scripts.'

P5 explained:

'Very useful, especially when we hear a word and don't understand it or confuse it with another word. But when I read the script, the word is more comprehensible and in its correct form because in English some words share the same pronunciation, so reading the script helps to distinguish between them'

P5 enjoyed this activity but she expressed her preference towards shorter scripts as opposed to longer scripts. P5 further elaborated on how reading the script while listening could aid the decoding process, improving the text's bottom-up processing. Additionally, this approach would be highly beneficial in distinguishing homophones – words that pronounced alike but have distinct meanings, derivations, or spellings.

4.6.2.3 Listening Instruction Preferences

At the end of the post-test interview, participants were asked to give or add any comments or ideas regarding teaching listening strategies in the future. P5 suggested hands-out of strategy lists

to be distributed among the students in advance to use them as reference during the listening activities. She said:

'Sometime oral instruction is not enough for students; some would like to also read. I would suggest sharing the strategies with students as hand-outs so they can go back to them when they need. To revise them after you explain it to them'

She also added:

'It's good to have a variety with questions (direct and indirect) because by time, this will provide us with good practice to listen in English and it prepares us to listen to long texts unlike when listening to only easy and direct text'

Another participant commented on the number of times a listening track should be played during the listening test, she preferred to listen to the passage more than twice by saying:

P3: 'listening to the passage only twice in the exams is not enough to get the right answers'

It should be noticed that P3 was a less-skilled listener, and the reason why she preferred to listen more than two times could be related to her level of listening proficiency; she needed more verification stages to get the correct answer.

P2 said it would depend on the listening passage and its level of difficulty:

'It depends on the passage, if it was a difficult one, the listening should be three times'

In terms of raising their motivation to learn and listen in L2, P6 suggested listening to audio recordings related to her interests, such as songs, podcasts and watching short movie clips. She added:

'I want to feel excited to come to university and enjoy learning with interesting lessons'

4.7 Summary

In this chapter, the quantitative and qualitative results were reported regarding the impact of strategy-based instruction on both the experimental and control groups. The results of the repeated measures ANOVA showed a significant interaction between the intervention and time on listening self-efficacy, with a large effect size. This suggests that there were significant differences between the two groups as a result of the intervention. Results from Spearman's correlation analyses imply that the three variables (self-efficacy, self-regulation, and motivation) are closely interconnected, particularly among the experimental group at Time 2. In order to delve

deeper into the connections among the intraindividual variables within the two groups across two time periods, the backward stepwise regression analysis was used. The findings present empirical proof of how self-regulation, motivation, and metacognitive awareness of learners affect their self-efficacy for L2 listening. A crucial outcome of the study is the recognition of the significant role of motivation, along with self-regulation, in determining the self-efficacy of the experimental group at Time 2. The teacher's diary and the listening documents obtained from the students' in-class work provided insight into the self-regulatory behaviours of learners in the experimental group over the 13-week intervention period. Overall, the experimental group participants responded positively to the listening strategy-based instruction and the self-regulatory approach that was implemented in the intervention. They also pinpointed specific aspects of the pedagogical approach that had been highly advantageous for them. These included learning different strategies explicitly to improve their listening comprehension, increasing awareness about the effectiveness of those strategies, and how their use had a positive impact on affective factors, such as self-efficacy and motivation.

Chapter 5 Discussion

5.1 Introduction

This chapter discusses the findings presented in chapter 4 of the main study in relation to the existing literature in the field. The first section (5.2) gives an overview of the study, summarising the theoretical framework and revisiting the research aims. The subsequent section (5.3) highlights the main results of each research question and provides conclusions based on these results. Finally, a summary is presented at the end of the chapter (5.4).

5.2 Study Overview

The primary goal of this study was to seek ways to help tertiary-level Saudi female students enhance their self-efficacy, motivation, and self-regulated learning to overcome L2 listening comprehension difficulties. Therefore, an intervention was designed, aimed at increasing students' metacognitive awareness and strategy use, that mediates a successful achievement in L2 listening comprehension. The study also sought to explore the interaction between those affective processes (self-efficacy, motivation, and self-regulated learning) concerning students' performance levels. Finally, students' attitudes towards the pedagogical intervention in a hybrid context, as well as their perceptions of the role of self-efficacy in L2 listening development were also examined.

The theoretical framework underpinning the current study is based on two models: (a) Zimmerman and Moylan's (2009) three-phase cyclical model of self-regulated learning to promote self-regulated learning (macro level); and (b) Vandergrift's (2004) pedagogical cycle of metacognitive strategies, which is a task-based model used to modify the listening task design to promote the use of metacognitive listening strategies (micro level). By combining these two models into metacognitive instruction, it was possible to investigate and reinforce the interaction between self-efficacy/self-motivational beliefs and metacognitive strategic behaviours of L2 listeners.

The study was driven by five objectives:

(a) To examine the effect of listening strategy-based instruction on learners' self-efficacy, self-regulation, motivation, and listening outcomes;

(b) To unravel the interactive relationships between self-efficacy, self-regulation, and motivation in order to better understand the individual differences that affect and determine L2 listening

comprehension and outcomes;

(c) To provide teachers with instructional tools for improving listening instruction;

(d) To solve a local problem by attempting to support all students of all L2 English proficiencies by focusing on the less proficient listeners because it is likely that their self-efficacy and motivational beliefs; therefore, their L2 listening outcomes are weaker;

(e) To explore learners' attitudes and perceptions towards the pedagogic intervention and how positive or negative they feel about it.

5.3 Summary and Discussion of Main Findings

This section reports on the general findings in relation to the research questions specified in Section 2.9 to guide the study. It also provides conclusions based on those findings.

5.3.1 Effects of Listening Strategy Instruction on Personal Factors and Listening Performance

Question (1): *To what extent do listening strategy instruction and feedback on listening strategy use affect self-efficacy for L2 listening, use of self-regulation strategies, L2 listening motivation and L2 listening outcomes over the treatment period?*

This question was examined by dividing the participants into experimental and control groups. The experimental group received a designed intervention based on metacognitively self-regulated models in L2 listening, coupled with modelling, awareness raising, observational learning, feedback, and strategy group discussions. Therefore, while the experimental group received explicit strategy instruction on how to integrate metacognitive L2 listening strategies in a principled and systematic way, the control group did not receive the same explicit strategy instruction, even though the L2 listening metacognitive strategies were implicitly embedded in their listening textbook.

The repeated-measures ANOVA results indicate that there was a statistically significant interaction between the intervention and time on listening self-efficacy, with a large effect size. It indicates significant changes between the two groups due to the treatment, and the finding resonates with other studies that assert the beneficial effects of strategy instruction on learners' self-efficacy for L2 listening (Ateia, 2016; Graham, 2007; Graham & Macaro, 2008; Magogwe & Oliver, 2007; Rahimirad & Zare-ee, 2015; Vafaeeseresht, 2015; Yan, 2012; Yeldham, 2016).

Likewise, the results of both self-regulated listening strategies and metacognitive awareness

demonstrate statistically significant results between the two groups over time. More specifically, the students in the experimental group significantly improved their self-regulated listening strategy in comparison to their counterpart group. The results of the self-regulated listening strategies scale mirror those found in other empirical studies (Mareschal, 2007; Read & Madera, 2016; Wang 2016). Similarly, the metacognitive awareness scale results reveal an increase in the experimental group's metacognitive knowledge, albeit a slight, non-significant increase, due to the treatment, which reverberates with previous findings in the literature (Altuwairesh, 2013; Maftoon & Almadari, 2020; Mahdavi & Miri, 2019; Mareschal, 2007; Vandergrift & Tafaghodtari, 2010; Wang, 2016; Zeng & Goh, 2018).

As mentioned earlier, the control group received implicit listening strategy instruction that was embedded in their textbook. Some possible explanations behind the control group underperforming, compared to their counterparts in self-regulated listening strategies and metacognitive awareness, can be attributed to the lack of adherence and awareness. In particular, it was noted that there was:

- Lack of adherence to internal and personal processes, such as goal setting and self-efficacy perceptions (Zimmerman, 1989), which means that those implicitly taught strategies did not address learners' personal experiences to be conceived as self-regulated;
- Lack of awareness of listening strategy use or misuse of existing ones (Schunk & Ertmer, 2000); and
- Lack of awareness of the strategic association between self-regulated process and listening outcomes, such as the reason for deploying these strategies and ascertaining how they are related to our self-efficacy beliefs and goal setting (Zimmerman & Martinez-Pons, 1990).

The L2 listening motivation results imply increased motivational levels from Time 1 to Time 2 among the experimental group. However, the motivation levels of both the control and experimental groups run in parallel, which implies that both groups encountered a comparable growth in motivation. Nevertheless, this finding on its own does not conclusively demonstrate that the intervention administered to the experimental group was the sole factor responsible for their enhanced motivation. Additional elements, including external influences, could also play a role in the parallel results. These findings, however, are inconsistent with the outcomes reported by Rivera's (2018) study on the effects of metacognitive listening strategy instruction on motivation among adult ESL learners. Rivera's (2018) study revealed no significant difference, as the motivation levels between the two groups decreased over the treatment period. This

divergence can be explained by the fact that this study was conducted within an EFL context, while Rivera's (2018) study was conducted among adult ESL learners. As such, it is more likely that the learners of each group have different learning motivational tendencies from each other. It should also be noted, however, that there are a number of differences between the current study and Rivera's study in terms of measures, treatment period, and the type of treatment for the experimental group. As for the Motivation Scale applied in Rivera' study, the scale was similar to the one applied in this study, developed by Hsu (2006) from Chang's Intrinsic Motivation Orientation Scale (2001). However, while Rivera's study included 24 items from that scale, this study included only 7 items. The duration of the treatment also varies between the two studies. While the listening strategy treatment in Rivera's study lasted for 7 weeks, the current study extends over a different duration (13 weeks). Finally, the design of strategy treatment in both studies differ significantly in terms of overall structure, types of activities employed, and the teaching materials utilised. All those factors would impact the main findings regarding the effects of metacognitive listening strategy instruction on motivation in both studies.

Moreover, the listening strategy instruction had a positive impact on L2 listening outcomes. The learners in the experimental group significantly improved their listening comprehension compared to their counterpart group. These findings corroborate the findings of previous studies that L2 learners benefit the most from strategy instruction in listening (Altuwairesh, 2013; Bozorgian, 2012, 2015; Graham, 2007; Graham & Macaro, 2008; Lotfi et al., 2016; Taguchi, 2017; Vandergrift & Tafaghodtari, 2010; Wang, 2016; Yan, 2012; Yeldham, 2016). However, the study is unique in combining the pedagogical approach of guided practice in the listening process (Vandergrift & Tafaghodtari, 2010) with conventional L2 listening strategy instruction (Mendelsohn, 1994, 2006). Furthermore, it focused on teaching one or two strategies at a time and practising those strategies for a limited duration of instruction. From a social cognitive perspective, the behavioural change in the learners' listening performance, before and after the intervention, could have resulted from developing a sense of agency due to the guided observation, and the learning received from the explicit strategy instruction and modelling. This raised the learners' awareness that performing certain actions (in this case, strategy use) can produce certain outcomes (listening achievements) or, what Bandura (2006) called, the personal and action causalities. This is also how the SCT depicts individuals as conscious agents with intentional efforts to engage with the environment through a self-regulating system. Such a process is directed by internal (regulating one's cognition and behaviours) and external (feedback and social persuasion) factors to help shape the self-system (Usher & Schunk, 2018).

The results of the listening comprehension scores of the control group, on the other hand, exhibited a significant decrease at Time 2. The difference was significant as it showed a decline in

the overall mean score of the control group from Time 1 to Time 2 [M = 0.82 to M = 0.71] (See Section 4.2.1.3). There are many reasons that may account for this decline in the control group's listening performance in addition to the reasons mentioned earlier (i.e., lack of strategy knowledge and use, lack of adherence and awareness of some self-regulatory and affective aspects related to L2 listening). Other reasons can be linked to limited opportunities to interact and communicate with others during the listening activities. While the experimental group were given the chance to participate in pair and group work despite the 'artificial environment' to practice English inside the classroom and knowledge gaps in communication (Hamad Al-khresheh, 2020, p. 364). The control group were not given the right opportunities and did not receive adequate guidance on how to employ interactive strategies effectively to improve their listening skills. Therefore, it is crucial to design a classroom environment that fosters active learning, peer interaction, and communication. Creating such an environment can help students develop their linguistic and communicative competencies and ultimately achieve successful listening outcomes.

5.3.2 Use of Individual Strategies

The individual listening strategies of the experimental group were measured using mixed-methods analysis (convergence model) to compare and contrast the deployed strategies at Time 1 and Time 2. Choosing a mixed-methods analysis to examine listening strategy use is recommended by the literature on GLL (good language learners) because it portrays a holistic and comprehensive image of how language learners truly employ listening strategies by looking at the frequency of strategy use (quantity) and manners (quality) of those strategies. For this reason, the Metacognitive Awareness Listening Questionnaire (MALQ) scores and the reported listening strategies collected from the stimulated recall sessions were analysed to explore in depth the effect of the intervention on strategy use.

The MALQ scale results show more deployment of Mental Translation before the intervention. In the literature on L2 listening strategy use, the general reliance upon Mental Translation is often associated with low listening proficiency levels and low linguistic knowledge, which constrains listeners' interpretation of different utterances that results in a comprehension breakdown (Field, 2019; Fung & Macaro, 2019; Hulstijn, 2003; Vandergrift, 1998, 2003). Mental translation was also reported to negatively correlate with listening self-efficacy in Rahimi and Abedi's (2014) study, which explored the relationship between Iranian EFL learners' listening self-efficacy and their metacognitive awareness of listening strategies. However, after the intervention, the learners reported less use of Mental Translation in both quantitative and qualitative data.

Furthermore, at the beginning of this study, it was observed that the learners relied more on the

'bottom-up' strategies than the 'top-down' ones, resulting in textual misinterpretations and comprehension gaps. For instance, they excessively deployed mental translation and note-taking compared to prediction and inferencing. This can be attributed to the learners' inability to consistently monitor and evaluate their listening performance and inferences (Mareschal, 2007). Another possible explanation is the learners' limited linguistic knowledge and vocabulary size at Time 1, which made them over-rely on textual information rather than activating their own pre-existing knowledge (Murphy, 1987; Smith, 2020).

Overall, the experimental group showed more deployment of the listening strategies during Time 2 compared to Time 1, with the exception of Mental Translation, which experienced a decline in usage from Time 1 to Time 2.

The use of a more challenging listening passage during the stimulated recall sessions (Time 2) demonstrates the learner's ability to switch to different types of strategies to compensate for listening difficulties. Some of those difficulties were related to insufficient prior knowledge, limited processing capacity due to unfamiliarity with the meaning of certain vocabularies, speech rate, and failure to deploy automated strategies. It was also noticed that the learners used fewer strategies and tactics to solve comprehension problems of more advanced listening passages. For example, they applied problem identification to assess the listening passage, followed by focusing on comprehension questions to narrow down their focus on specific information. Also, they applied rhetorical organisation to help them come up with the main idea of the text. These metacognitive strategies fall under the umbrella of 'problem-solving', which is linked to the metacognitive process of 'comprehension monitoring', observing one's comprehension while recognising listening problems and how to act upon those problems. In L2 listening literature, it was found that the use of both metacognitive knowledge and strategic behaviour when encountering such listening problems is substantial in achieving successful listening outcomes (Goh & Hu, 2014; Vandergrift & Tafaghodtari, 2010; Yeldham & Gruba, 2016).

During Time 2, the experimental group demonstrated an enhanced capacity to utilize metacognitive listening strategies, which indicates the learners' progress in their strategy application to overcome comprehension difficulties in recognizing particular phonological and lexical elements. This finding mirrors a study conducted by Yeldham & Gruba (2016), who examined the development of learners' self-regulated metacognitive strategies, especially when facing listening difficulties. In their study, they found that learners became more skilled at solving problems by orchestrating a wide variety of metacognitive strategies during the course of the treatment. O'Malley and Chamot (1990) emphasised that the type of strategies learners deploy can be determined by different factors, including the task itself. In this case, the students decided

on the appropriateness of strategies based on contextual factors (the difficulty of the listening passage), which is an important aspect of the dynamic and complex nature of learning strategies, as defined by Oxford (2016) (See Section 2.5.1). Also, giving the learners a chance to select and decide which strategies to combine to meet the task demands is a vital aspect of self-regulated learning, where learners practice control over task performance to achieve success (Zimmerman, 1990). This is also linked to the cluster analysis conducted by Graham et al. (2020), beginner learners of French in the younger age group experienced significant improvements in self-efficacy through strategy instruction. These improvements were particularly pronounced when the instruction was provided by a teacher and involved the implementation of multiple strategies in a coordinated manner (orchestration of more than one strategy).

In terms of proficiency level, high-skilled listeners (who were identified by their high scores on the Long Listening Comprehension tests (LLC) used during the stimulated recall sessions) tend to orchestrate more metacognitive listening strategies than low-skilled listeners. This finding aligns with the scholarly consensus that skilled L2 listeners tend to regulate their cognitive processes successfully by implementing an array of metacognitive strategies (Graham & Macaro, 2008; Vandergrift, 2003b; Vandergrift & Tafaghodtari, 2010). For example, one of the high-skilled listeners reported using Selective Attention to narrow down her focus on certain items after applying Prediction combined with Advance Organisation to focus on comprehension questions. Another high-skilled listener reported using Prediction and Activating Prior Knowledge to aid with comprehending the text. Conversely, low-skilled listeners tend to rely more on cognitive 'bottom-up' strategies and repetition of the text to verify their answers. One of the low-skilled listeners reported that the second and sometimes third verification helped her to get the correct answers.

The mixed-methods analysis (convergence model) indicates that the learners successfully deployed metacognitive strategies more excessively, for instance, by focusing on comprehension questions, directed attention, and comprehension evaluation, followed by 'top-down' cognitive strategies, such as inferencing and imagery, and finally the 'bottom-up' cognitive strategies, such as fixation. This integration of metacognitive and cognitive strategies served to facilitate the learners' bottom-up and top-down processing of the input, orchestrate their strategy use, and develop their strategic competence (Smith, 2020).

An apparent observation from the stimulated recall sessions was related to the difference between high- and low-proficient listeners in terms of articulating their strategy-use process. While high-proficient listeners showed more ability to reflect on their listening process, low-proficient listeners were unable to verbalise their listening process precisely. This finding is similar to Nunan's (1991) study, which discovered that more effective learners surpassed their peers by

acquiring the skill to reflect on and express their own language learning procedures.

5.3.3 Moderating, Extraneous and Participant Variables

5.3.3.1 English Language Proficiency as a Moderating Variable

The linear regression analysis conducted to explore the effect of English language proficiency as a moderator variable on the relationship between the listening scores at Time 1 (independent variable) and listening scores at Time 2 (dependent variable) indicates that students' English language proficiency moderates the relationship between (a) the listening outcomes (Time 1) and the listening outcomes (Time 2), and (b) the self-efficacy levels (Time 1) and the self-efficacy levels (Time 2) among the control group. However, the results indicate no moderating effect of English language proficiency on the relationship between the intervention and any of the dependent variables among the experimental group, except for an individual effect of English language proficiency (final exam scores) on listening outcomes at (Time 2).

The findings of the control group are consistent with previous empirical studies in the literature on L2 listening comprehension, which have demonstrated that a student's proficiency in the language is a crucial factor in their ability to comprehend spoken input and enhance their self-efficacy beliefs. Research has shown that listening comprehension involves a complex interplay of linguistic knowledge, cognitive skills, and background knowledge, all of which are influenced by a learner's language proficiency. Many studies found that high-proficiency learners were better able to use their prior knowledge and contextual clues to make inferences and comprehend spoken input than low-proficiency learners (Long, 1990; Schmidt-Rinehart, 1994). Similarly, a study by Thompson and Rubin (1996) demonstrated that the ability to recognise and interpret different speech sounds, a key component of listening comprehension, was strongly correlated with language proficiency.

The second finding that students' English language proficiency moderates the relationship between listening outcomes and self-efficacy levels among the control group suggests that learners' proficiency levels may affect their perceptions of their own listening abilities. Research has revealed that language proficiency can affect self-efficacy beliefs (Bandura, 1997). Those studies provided evidence that individuals with higher levels of language proficiency tend to have more positive self-efficacy beliefs in their language abilities. For instance, in their (2015) study, Ayoobiyan and Soleimani investigated how 120 Iranian medical students' English language proficiency was linked to their self-efficacy levels. The results of the study indicated that there was a positive correlation between the students' self-efficacy and their success in language learning. This relationship is likely due to the fact that individuals with higher language proficiency have

greater experience and exposure to the language, which can increase confidence in their abilities.

This finding has important implications for language educators, who should aim to build learners' self-efficacy beliefs by providing opportunities for successful and positive feedback, particularly for students with lower language proficiency levels. By doing so, educators may be able to help learners develop more positive beliefs about their own listening abilities, which in turn may improve their overall performance in L2 listening comprehension tasks.

As for the experimental group, it was found that English language proficiency did not have a moderating effect on the relationship between the intervention and listening outcomes, which is an interesting finding. It suggests that the intervention was effective, regardless of the level of English proficiency of the participants. Therefore, while English language proficiency plays a significant role in determining listening outcomes, the instruction and utilization of strategies can serve as a compensatory factor for this. However, it is noteworthy that only final exam scores positively influenced learners' listening outcomes. This finding aligns with empirical studies in the literature on L2 listening comprehension, which highlight the importance of background knowledge, vocabulary, and grammatical competence in understanding spoken language (Long, 1990; Smith, 2020). It also underscores the need for language learners to engage in extensive and varied listening practice in order to improve their listening skills. Overall, these results suggest that language educators should focus on developing learners' linguistic and metacognitive awareness, as well as providing ample opportunities for listening practice in order to enhance L2 listening comprehension.

5.3.3.2 Extraneous/Participant Variables

As for the extraneous/participant variables, three extraneous variables were found to affect the L2 listening comprehension of the experimental group: the age of the participants, their educational level when they started to learn English, and their participation in English listening activities outside the classroom.

Firstly, the age of the participants is a significant extraneous variable that can affect L2 listening comprehension. In this study, the experimental group was found to be significantly older than the control group (the experimental group had 29% of students aged 19, compared with their counterpart, which had only 14.5% students aged 19). According to Ardasheva et al. (2017), younger learners tend to favour social strategies, whereas older learners tend to prefer metacognitive and cognitive strategies. The reason for this could be due to the learners' cognitive maturity and the evolving perception of themselves as second language learners (p. 552).

Secondly, the educational level when starting to learn English is another extraneous variable that

can impact the development of L2 listening comprehension. In the current study, the experimental group reported that they started to learn English at an earlier stage than the control group (16% reported by the experimental group versus 3% reported by the control group for receiving pre-school education). Previous research has shown that early exposure to L2 is associated with better L2 listening comprehension skills. For example, according to Collier's research in 1987, individuals who were naturally exposed to a second language during their early years tend to attain greater proficiency. Listening is a crucial component during this developmental period, as a child's initial exposure to a language, even a foreign one, is through listening to others speak. Therefore, a child's comprehension of language begins with listening. This may be because early exposure to L2 can lead to a more extensive and robust L2 lexical and grammatical knowledge base, which could facilitate comprehension. However, in the current study, although the experimental group reported having started learning English at an earlier stage compared to the control group, specifically indicating the exposure to English during their pre-school education, both groups did not differ across L2 listening proficiency test at Time 1 (According to the results in Section 4.2.1.1).

Thirdly, participating in English listening activities outside the classroom before the intervention is another extraneous variable that could affect L2 listening comprehension. The experimental group demonstrated a higher percentage of outside-classroom participation compared with the control group (27% and 8%, respectively). Earlier studies have discovered that engaging in listening activities outside the classroom can improve L2 listening comprehension skills (Field, 2008; Vandergrift & Tafaghodtari, 2010). This is because listening to authentic materials, such as movies, songs, and podcasts, can expose learners to different accents, intonations, and styles, leading to better comprehension.

5.3.4 The Interrelationships between Self-Efficacy for L2 Listening, Self-Regulation and L2 Listening Motivation

Question (2): *What are the relationships between self-efficacy for L2 listening, self-regulation and L2 listening motivation at all test times*?

The results of the Spearman's correlation analyses used to explore the relationships between self-efficacy, self-regulation, and motivation for L2 listening suggest highly intricate interrelationships between the three variables, especially among the experimental group in Time 2. Although correlation measures the strength and direction of the relationship between variables (Bryman & Cramer, 1992), it does not indicate causality (Cohen et al., 2018). As such, changes in variables might be attributed to other extraneous or moderating variables, which might influence both variables to change in tandem.

In light of the findings mentioned above, a few conclusions were inferred. First, self-regulated and metacognitive awareness strategies in listening showed positive correlations at all the time points for both groups, although the correlation was positively stronger during Time 2 compared to Time 1. This positive correlation aligns with the theory of self-regulated learning, where metacognitive awareness is viewed as one of the main constructs that interacts with other affective variables, such as motivation, to predict learning outcomes (Zimmerman, 2008). This correlation was also documented in previous studies that investigated the interrelationships between metacognitive awareness and self-regulation in L2 listening (Lin & Gan, 2014; Mareschal, 2007; Zeng & Goh, 2018).

During Time 1, the reported scores of listeners' physiological state (self-efficacy) in the control group were associated with seeking social assistance (SRL), including consultation with the teacher and friends when encountering listening difficulties. This indicates that those listeners would be in a better physiological state, such as feeling more comfortable and less nervous while listening if they received the required social support from others (Al-Harthy et al., 2010; Ateia, 2016; Bandura et al., 2003). Also, the scores reported better meta-affective listening strategies (SRL), such as trying to relax and avoid nervousness while listening, to be linked with MALQ (planning and evaluation). It implies that when those listeners plan ahead, set goals, and assess their performance, their meta-affective strategies would also be enhanced positively. This is also evident in Zeng and Goh's (2018) study, which investigated the impact of self-regulated learning on metacognitive awareness among EFL students in China. The finding indicated that planning and evaluation strategies greatly assisted learners with reducing their anxiety levels and enhancing their self-confidence to listen.

During Time 2, the scores of the same control group showed a positive relationship between self-efficacy and motivation. Although this group did not receive explicit metacognitive strategy instruction, the correlation could be interpreted as a result of the implicit and integrated strategy instruction found in the textbook. Otherwise, it could be merely due to the overall development of the students' L2 linguistic knowledge, including the development of other L2 skills. The scores also indicate a correlation between seeking social assistance (SRL) and metacognitive awareness strategy. This means that an increase in metacognitive awareness could be affected by an increase in consultations and seeking help from others (and vice versa). The reported scores of the source of self-efficacy (verbal persuasion) are linked to both MALQ (planning/evaluation) and MALQ (directed attention). This implies that the more positive feedback those listeners get, the better they would likely perform in planning, evaluating, and directing their attention when listening in L2.

For the experimental group (Time 1), the scores of MALQ (directed attention) correlated positively with self-regulation (meta-affective listening strategies), which indicates that those listeners are more relaxed and less nervous when they are more focused while listening (Zeng & Goh, 2018). Moreover, MALQ (planning and evaluation) correlated positively with self-regulation (seeking social assistance), which implies that getting help from others, while listening is associated with planning, goal-setting, and self-evaluation for those listeners. Conversely, there was a negative correlation between self-regulation (meta-sociocultural-interactive strategies), such as improving listening to learn more about the target-language culture, and motivation as well as self-efficacy (vicarious experience). This suggests that listeners do not feel motivated, and they also do not feel confident enough to learn about the target-language culture, even when they see others improve their listening performance. Finally, there was a negative correlation between MALQ (mental translation) and source of self-efficacy (performance outcomes), indicating that listeners do not utilise mental translation when they think about their listening performance at different stages or when they experience success. Both control and experimental groups share the same self-regulatory behaviours when it comes to the correlation of meta-affective and listening self-regulatory strategies. The results reveal that listeners in both groups at Time 1 are more relaxed and less nervous when they are more focused, plan ahead and are in control of their L2 listening process.

The scores of the listeners in the experimental group (Time 2) reveal more interactions between almost all of the variables. The interplay was evident between self-efficacy and other variables: motivation, self-regulation, and MALQ. It implies that when listeners are more confident in their listening ability, they tend to be more motivated and more strategic in their behaviour to listen in L2. Therefore, the current study confirmed the previous findings about the connections between self-efficacy, motivation, and strategic behaviour. Self-efficacy has been viewed as a source to generate, enhance and maintain motivation, which in turn, impacts on learners' persistence and intentional effort at learning (Schunk, 1991; Zimmerman, 2000). It also indicates that their metacognitive awareness and strategy use would rise as their self-efficacy beliefs rise in L2 listening (Ateia, 2016; Gahungu, 2007; Kaya, 2017; Nasrollahi-Mouziraji & Birjandi, 2017; Nosratinia et al., 2014; Rahimi & Abedi, 2014). There was also a strong positive correlation between self-regulation and motivation, which means that when the listeners are more motivated to listen, they would deploy more listening strategies and exhibit more control over their listening process.

These results lead to similar conclusions found in students' SRL and motivation literature, which highlights the importance of motivational and self-regulated learning components in L2 learning and academic success (Ardasheva et al., 2017; Chon & Shin, 2019; Jin & Xu, 2017; Pintrich & De

Groot, 1990; Wang & Zhan, 2020). More specifically, self-regulation (meta-sociocultural-interactive strategies) was reported to correlate positively with both MALQ and motivation. Furthermore, self-efficacy (vicarious experience) has greater interactions with self-regulation and MALQ, which suggests that the more self-efficacious the listeners, the more self-regulated their listening performance is and the more metacognitively aware they become (Graham et al., 2020; Raoofi et al., 2012; Zimmerman, 2002).

5.3.5 Self-Regulation, Motivation and Metacognitive Awareness as Predictors of Self-Efficacy for L2 Listening

Question (3): *Which, if any, of the variables (self-regulation, L2 motivation, metacognitive awareness) predicts L2 self-efficacy for L2 listening?*

The purpose of the backward stepwise regression analysis was to further explore the relationships between the intraindividual variables among the two groups at two time points. The results provide empirical evidence of how learners' self-regulation, motivation, and metacognitive awareness predict self-efficacy for L2 listening. One of the key findings of this study is the significant role of motivation in addition to self-regulation in predicting self-efficacy of the experimental group during Time 2. Although the regression analysis results revealed that metacognitive awareness negatively predicted self-efficacy, both motivation and self-regulation positively predicted self-efficacy, with a higher contribution of motivation in the predictive regression model relative to self-regulation. It indicates that self-efficacy tends to increase when motivation and self-regulation both increase during the treatment period. These entwined relationships are due to the nature of self-efficacy as the root of motivational beliefs and self-regulated behaviours (Bandura, 1992).

In terms of motivation, both motivation and self-efficacy are pivotal elements of the cognitive process, which play a reinforcing engine to create efficacy expectations, enhancing previously learned and persistent current behaviours (Bandura, 1977). Moreover, both constructs reciprocally influence each other to create a probable success cycle in learning. This reciprocal relationship is emphasised in social cognitive theory, where self-efficacy predicts learners' motivation (Pajares, 1996; Schunk, 1991;1995; Zimmerman, 2000), and motivation, in return, predicts learners' overall self-efficacy, according to the current study. Notably, this predictive relationship to identify how each construct influences the other has been overlooked in the literature on L2 listening, particularly the predictive role of motivation on self-efficacy. However, these results tie well with previous studies that explored the correlational relationship between motivation and self-efficacy in L2 learning, wherein sustaining motivation plays a primary role in determining levels of self-

efficacy (Ariff et al., 2022; Taheri-Kharameh et al., 2018).

By the same token, self-regulation has been found to predict self-efficacy as a result of the intervention in this study. This can be attributed to the role of self-regulation in fostering individuals' self-efficacy beliefs and perceptions of themselves when performing a task (Schunk & Zimmerman, 2007). Similar conclusions were reached by previous studies emphasising how self-regulatory control over one's learning process can enhance self-efficacy and vice versa (Graham et al., 2020; Raoofi et al., 2012; Zimmerman, 2002), as when learners lose control over a task, they tend to lose their confidence in performing efficaciously (Zimmerman, 2000).

On the contrary, the results of the control group during Time 2 showed that only motivation predicted self-efficacy in all three regression models. This establishes that a link between motivation and self-efficacy among the control group can be related to the developmental progression of learners' cognitive processing throughout the semester. Otherwise, it could be related to other social and environmental factors, such as when receiving more feedback from the teacher and peers (social persuasion), the parents' involvement, and the amount of exposure to L2 outside the classroom.

Finally, the findings of the regression analysis during Time 1 for both groups indicate that there were no statistically significant relationships between the three predictors and self-efficacy.

5.3.6 Self-Regulatory Behaviours Exhibited by Learners during the L2 Listening Strategy Instruction

Question (4): *What self-regulatory behaviours did the learners employ during the L2 listening strategy instruction?*

According to the teacher's diary and the listening documents collected from the students' in-class work, it was possible to explore learners' (experimental group) self-regulatory behaviours, including listening strategies, during the course of the intervention (13 weeks). The analysis of this question was based on Zimmerman and Moylan's (2009) three-phase cyclical model of self-regulated learning (mentioned in Section 2.4.4) and Oxford's (2017) strategic self-regulation model of language learning [S2R] (mentioned in Section 2.5.6), which were adopted as frameworks to track the self-regulatory behaviours of L2 learners, to gain deeper insights into the development of L2 listening skill through metacognitive monitoring and strategy use. Although these models have different focuses, they share some similarities in terms of the three phases that learners go through: the forethought phase, the performance phase, and the self-reflection phase. In other words, both models highlight the importance of learners' metacognitive and self-regulatory

processes at different stages of the learning process. This suggests that there is some overlap in the way these two models conceptualize the role of self-regulated learning and metacognitive strategies in second language listening development. However, the Oxford's (2017) strategic self-regulation model of language learning [S2R] adds a sociocultural dimension to the analysis of self-regulatory behaviours. It emphasizes the importance of cultural and social factors that influence learners' self-regulation. The model recognizes the role of learners' cultural and social identities, as well as their beliefs, attitudes, and emotions, in shaping their self-regulation strategies.

During the forethought phase, it was found that learners tend to improve their goal setting and strategic planning for L2 listening, especially towards the last few weeks of the intervention. This improvement can be linked to the principled and structured strategy instruction, where learners had to practice setting goals for themselves for the next listening task and planning for the strategies they would want to deploy. Action planning and goal setting were essential for students to identify comprehension problems and select strategies that would help them remedy those problems. This is also linked to how SCT views the effectiveness of goal setting for learners. If the goal was specific (not too general) and proximal (as opposed to distant goals), learners would work more progressively toward them, with more enhanced self-efficacy and motivation because specific and proximal goals allow for easier assessment of progress (Bandura, 1988). During the intervention, students were given the chance to set specific goals related to their evaluation of strategy use, and how to improve the orchestration of strategies for their next listening activity. Those goals were also proximal because they were set on a weekly basis, which made it easier for students to gauge their own progress. However, setting specific, proximal, and challenging goals is not enough to achieve them, as students need to undergo the required strategy training (Kanfer & Ackerman, 1989), receive feedback (Erez, 1977), and incorporate planning (Latham & Locke, 1991; McEwan et al., 2016) to ensure better outcomes of those goals. All the goals were fulfilled during the course of goal setting and strategic planning of the intervention.

The next performance phase is when the actual learning occurs. It comprises two main processes: self-control and self-observation. Self-control is the stage when learners begin to deploy their planned strategies, solve listening problems, and seek help from others when needed. The general observation of learners' strategy use during the beginning of the intervention was that they relied excessively upon cognitive rather than metacognitive strategies, especially when it comes to mental translation. The utilisation of mental translation strategy is considered a hindrance in L2 listening development, as it causes cognitive overload and imprecise inferencing of the text. The reason learners deployed mental translation during the beginning of the intervention can be attributed to the dominant teaching methodology used in teaching English in Saudi Arabia. Teaching English in Saudi public schools is largely based on audio-lingual and grammatical-

translation methods (as discussed in Section 1.2.1), where students are required to memorise new vocabularies and grammatical rules, translate words and sentences, and even memorise lexical chunks to produce written work in English (Al-Seghayer, 2011). This is despite the Saudi Ministry of Education's decision in 2005 to implement the communicative language teaching (CLT) approach in the English language curriculum (Alqarni, 2017). Another reason causing English learning deficiencies among Saudi students is the focus on developing grammatical competency rather than communicative and strategic competencies (Al-Mazroou, 1988), regardless of the current tendency of the Saudi Arabian government to shift to CLT methods to improve competence in English (Batawi, 2006). However, the intervention resulted in a change in the experimental group's strategic behaviours, moving them away from heavy reliance on cognitive strategies (e.g., mental translation) (Time 1) towards a reduced dependence on cognitive strategies and more implementation of metacognitive, cognitive and affective listening strategies (Time 2) (as indicated in the results from 4.2.2.3 and 4.2.2.4).

Another observation related to learners' use of listening metacognitive strategies was that none of the students reported using planning and evaluation during weeks 1 and 2 of the intervention. It indicates that these two specific strategies were usually overlooked in those Saudi EFL learners' former teaching and learning. This is also directly in line with previous findings related to Saudi EFL use of listening strategies in which metacognitive strategies, especially planning and evaluation, were found to be one of the least preferred strategies to deploy (Al-Malki, 2018; Altuwairesh, 2013; Nasim et al., 2022).

Seeking help with the listening task from peers and from the teacher was observed since Week 1. The reason behind this is associated with incorporating the pedagogical cycle for generic listening activities (Adapted from Vandergrift, 2004; Zimmerman & Moylan, 2009; Zeng & Goh, 2018), which allowed students to work in pairs and groups to collaborate in solving listening problems and discuss their strategy use, then write goals for the next listening activity. Common salient changes found in the students' help-seeking behaviours were: (1) an increase in their confidence to discuss their ideas, (2) a decrease in their fear to share their thoughts, (3) more engagement during the task, and (4) increased class unity due to the class discussion conducted during the second listening stage of the pedagogical cycle.

Self-observation, which is the second process in the performance phase, includes metacognitive monitoring. This meta-learning process is a fundamental component of continuous learning improvement. Unlike planning and evaluation, it was found that during the intervention, specifically from Week 2 onwards, the students deployed both comprehension monitoring and double-check monitoring in their listening strategy. This systematic implementation of the self-

regulatory process of monitoring is also due to the design of the pedagogical cycle used in the intervention. Students were required to actively monitor their comprehension, which included guessing unknown words and checking what they heard with their previous predictions. This was achieved through three listening stages, where they had to double-check their monitoring process at Stage Three (the third verification stage).

In the early stages of the intervention, the students did not seem to deploy metacognitive monitoring while listening, as compared to the selective and directed attention strategies, which were utilised more effectively since Week 1. This observation matches the one found by Altuwairesh (2013), who investigated the listening strategies of Saudi EFL students during Phase One. The participants in that study did not exhibit metacognitive monitoring prior to the metacognitive instruction. However, a similar conclusion was reached after the intervention demonstrating a progressive increase in the use of comprehension monitoring and double-check monitoring strategies among students.

Considering the results of the most used strategies, it was observed that selective and directed attention (metacognitive), inferencing (top-down), and paraphrasing (bottom-up) were deployed since Week 1 of the intervention. The students showed the ability to redirect their attention with the purpose of finding the correct answer in the text, especially with short passages. With long passages, however, they had to orchestrate more than one strategy to comprehend the input. For instance, they deployed notetaking with selective and directed attention, as it was hard to rely on attention exclusively due to the length of the text and the cognitive overload of memorising and recalling the information. This finding aligns with other studies that revealed Saudi EFL preference for directed attention as a listening strategy, even when they lose track of the text, as they tend to regain their attention and redirect it toward the next listening part (Alhaison, 2017; Altuwairesh, 2016; Nasim et al., 2022).

It was problematic, however, to distinguish between selective and directed attention and fixation (concentrating on understanding small parts of a text, such as spelling of unfamiliar words) in the teacher's diary, unlike in the data collected from the stimulated recall interviews where it was easier to elicit each type of strategy use more precisely through verbalisation and self-report (Goh, 2000; Graham, 1997; Murphy, 1985). This distinction is critical because selective and directed attention are considered as metacognitive self-regulatory processes, while fixation, on the contrary, is considered to be a harmful strategy that hinders the overall comprehension of a text (Field, 2019; Graham, 1997; Hulstijn, 2003). Thus, it could be assumed that the students applied both selective/directed attention and fixation at the beginning of the intervention. Then, as their self-regulatory skills and self-control improved and became more automated, they tended to avoid

fixation, as they made strategic progress throughout the intervention.

Another prominent listening strategy that was observed during Weeks 1 and 2 was inferencing. Inferencing was also found to be among the most common active strategies that EFL students use in other contexts. Inferencing, which is related to how students build meaning from the given information to solve listening problems, was one of the most favoured strategies among Saudi students in previous studies (Altuwairesh, 2016; Nasim et al., 2022). In the MALQ questionnaire, inferencing is considered as a sub-scale under problem-solving strategies. Such strategies mark more proficient listeners compared to less proficient ones in the literature on L2 listening (Berne, 2004; Goh & Hu, 2014). It also signifies that the students were already familiar with deploying effective listening strategies, which can be related to their previous learning experiences in middle and high school.

Overall, the explicit and repeated teaching of L2 listening strategies was an important factor that facilitated students' unconscious integration of those strategies among the experimental group, resulting in automatising the strategy uses during the listening process (Conti & Smith, 2019). This is because, at the early stages of learning, strategies tend to be more conscious and goal-driven (Chamot, 2005; Oxford, 1990), requiring guided strategy instruction and feedback from the teacher. However, with repeated and consistent utilisation of those strategies, they would transform into habits which would necessitate conscious awareness or cognitive effort in the long-term (Oxford, 2016). On the contrary, the control group's results revealed a decrease in their listening self-regulatory strategies (See Section 4.2.1.3) due to not receiving the same guided strategy instruction and/or strategy feedback as the experimental group.

From a sociocultural perspective, according to the strategic self-regulation [S2R] model of Oxford's (2016), one of the cultural challenges related to listening comprehension of Saudi EFL students was developing their communicative competence, which entails understanding the socio-cultural norms and contexts of language use. In Saudi Arabia, due to the limited opportunities for English language use outside the classroom, students rely solely on classroom instruction, which presents an 'artificial environment' for language acquisition (Hamad Al-khresheh, 2020, p. 364). This situation often leads to students' struggle with their listening comprehension skills, which are essential for achieving language proficiency. However, the design of the intervention helped to address this challenge as the students in the experimental group were provided with opportunities to interact and communicate in English within an appropriate sociocultural and contextual environment through pair and group work (e.g., getting engaged in a range of interactive activities, such as strategy group discussions and think-pair-share). Creating such an environment can help learners develop their listening skills and enhance their communicative

competence and eventually improves their self-regulation to listen in L2.

5.3.7 Students' Perceptions of the Self-Regulatory Approach to Listening Strategy Instruction in Hybrid Context

Sub-Question (4a): *How did the students perceive the listening strategies instructed in hybrid learning: their strategy use, and their preferences in terms of L2 listening instruction?*

5.3.7.1 Students' perceptions of the listening strategy-based intervention

In general, the participants in the experimental group gave positive feedback regarding the designed strategy instruction and the self-regulatory approach implemented in this intervention. They also identified some specific aspects of the pedagogical approach that had been extremely beneficial for them. Among those aspects are the different types of strategies that were explicitly taught to them to leverage their listening comprehension, awareness-raising related to the effectiveness of those strategies, and the effect of strategy use on enhancing affective factors, such as self-efficacy and motivation.

These findings are consistent with previous studies that examined the impact of strategy-based instruction on students' listening development. Similar to the current study, the language learners exhibited positive attitudes towards the listening task design in those studies. For instance, in Mareschal's (2007) study, which investigated the effects of a process-based, self-regulatory approach to L2 listening instruction on language learners' listening strategy use, and general success in listening comprehension, the students reported an increase in their strategic knowledge and metacognitive awareness, as well as their overall listening performance. Likewise, Graham and Macaro (2008) investigated the impact of listening strategy instruction on EFL French (Year-12) students in the UK. Their findings reveal that the students who underwent the intervention had more gains compared to their counterparts. The students further reported that their proficiency in listening comprehension improved considerably at Time 2.

5.3.7.2 Students' perceptions of the listening strategies taught during the intervention

In terms of students' strategic knowledge, which refers to understanding different types of strategies and how to utilise them to achieve success in language learning (Wenden, 1991), the students in the experimental group reported an improvement in their general awareness of listening strategies and understanding of their roles in developing listening and assisting comprehension. However, they also reported a lack of knowledge about specific types of listening strategies that were introduced to them during the intervention. On the other hand, others reported that although they used some strategies implicitly, they did not know about the types of

strategies and their specific functions, that is, whether they were top-down, bottom-up, or metacognitive strategies.

Students' awareness of listening strategies was also explored in Goh's (1997) study, which investigated ESL learners' beliefs about strategic knowledge. It was found that those learners were aware of their listening processes and the strategies they were deploying through self-reporting their mental processes in their listening diaries. Similar to the findings of this study, the learners were able to implement and describe the listening strategies, but they did not identify the specific category of each strategy or classify those strategies according to their functions. Another study, conducted by Zhang and Goh (2006), revealed that although the learners demonstrated strategic knowledge and awareness regarding the usefulness of strategy use in listening, they lacked both consciousness and confidence to deploy those strategies. One underlying reason could be the correlational relationship between their ability to maintain control over a repertoire of strategies and increased confidence. For example, when learners are more conscious about and capable of self-regulating their strategies, their self-efficacy levels also tend to be enhanced, and vice versa (Zimmerman, 1990; 2002). In this study, the experimental group's strategic behaviours after the treatment emphasized this link that an orchestration of listening strategies is positively associated with enhanced self-efficacy and confidence levels to perform a listening task (as discussed in the findings in Section 5.3.6).

5.3.7.3 Students' perceptions of self-efficacy and motivation in relation to strategy use

Students' perceptions of self-efficacy and motivation concerning strategy use were also examined after the intervention. Interestingly, the high-proficient listeners commented that the strategy-based instruction and strategy use had a positive effect on their self-efficacy (confidence) and motivation in listening. This finding corroborates with the master experience (one of the self-efficacy sources), which states that when learners experience success, their self-efficacy and motivation will eventually be improved (Bandura, 1997). These findings add to the weight of evidence from other studies that have examined learners' perceptions regarding the self-efficacy and strategy use. The learners in those studies also agreed on the positive association between deploying listening strategies and enhanced self-efficacy (Vandergrift, 2003b; Mareschal, 2007). However, one low-proficient listener did not seem to agree with the rest of the participants. She explained that it would depend on the person to get this correlational relationship between strategy use and self-efficacy to work.

5.3.7.4 Students' perceptions of listening instruction in hybrid context

Regarding listening instructions in a hybrid context, all six participants expressed their preference for face-to-face over online learning. Although some participants reported the benefits of hybrid learning by splitting the group into halves to minimise the number of students in one classroom and to maintain social distancing, the division of each group into two led to a drastic reduction in the total number of attendees in one classroom from 30 to 15 students. However, in terms of the learning experience, all the participants preferred having face-to-face classes rather than online classes. Some of the reasons behind that were to avoid distractions from home, such as sharing the room with other siblings and being disturbed by the interference of a family member during the online class. Others even reported being highly tempted to go back to sleep when they attended from their bedrooms. Another reason was the teacher's physical presence in front of the students, as it forces them to concentrate more and be more engaged in their classroom activities. Some participants mentioned their struggle with technical issues during the online class and the poor network coverage, especially those living in remote areas.

Finally, some participants referred to experiencing better communication and engagement during the pair- and group work inside the classroom instead of breakout rooms during virtual class meetings. These findings align with the findings of research conducted by Alhusban (2022), who investigated Saudi EFL tertiary-level learners' satisfaction with the synchronous hybrid learning method, which combined face-to-face and virtual teaching simultaneously. The results revealed that the learners were generally in favour of face-to-face classes compared to online classes. The main reason highlighted by most of the learners was the high levels of concentration during the face-to-face sessions over the online ones. One explanation given for remaining more focused during the face-to-face class was paying more attention to the teacher's body language and eye contact. Being distracted by other family members was also one of the downsides they referred to of the online classes.

5.3.7.5 Students' perceptions of specific aspects of listening instruction

As for the specific features of the intervention, the participants were asked to share their thoughts regarding the materials used for awareness raising of listening strategies, materials used for observational learning, and additionally, the use of scripts to facilitate reading while listening during the third verification stage of the listening activities. The participants provided mixed views regarding those features and even suggested a few modifications to improve the feasibility of those features.

For the materials used to raise students' awareness regarding the effectiveness of using listening

strategies, the video used for this purpose was about a local lady who spoke Arabic, albeit with an unintelligible accent to describe a problem. The reason for using L1 material was to raise students' awareness of the importance of strategies to facilitate the listening comprehension process. Students were informed about the importance of strategies like inferencing (guessing meaning from the context), problem-solving, and comprehension monitoring to assist in understanding the text. All participants reported that they benefited from the material used for raising awareness about strategy use. However, two high-proficient listeners said that they preferred watching videos in L2 (English) rather than L1 (Arabic) to learn more about different varieties of English accents. These findings are equivalent to the findings from Graham and Macaro's (2008) study, which applied an intervention program with materials used for raising awareness of specific listening processes and speech segmenting patterns. The overall results of the designed intervention indicated positive and successful gains in relation to L2 listening proficiency.

Vicarious observational learning was another feature embedded in the intervention. The students watched a video recording of a person of their age performing a listening task while that person verbalised the listening process. For example, the person talked about the clusters of strategies used to perform the task, the difficulties of the listening text, and how to overcome them. They then gave a self-evaluation report at the end of the activity, which included setting goals for the next listening. This designed activity was unique to this study, as it was tailored specifically based on Bandura's Social Cognitive Theory (1977; 1986), which suggests that all humans can learn by observing others. The purpose behind incorporating this activity into the intervention was to support the acquisition of learning listening strategies and to enhance those students' self-efficacy when they watch their peer perform the same listening tasks. By the end of the intervention, all the participants gave positive feedback related to watching those videos, as they praised the overall instructional experience via observational learning.

When the participants were asked about their views concerning reading the scripts while listening to the passage (during the third verification stage), three of them acknowledged the benefits they received from reading while listening, especially when they tried to figure out the spellings of new words and identify homophones and other written segments. However, three other participants said it was unnecessary to read and listen at the same time, especially with short passages, as it wasted their time. Still, they had mixed answers when it came to longer passages because some favoured reading the scripts with long texts to help with double-checking their comprehension while others preferred more repetition of the audio track over reading the script while listening.

5.3.7.6 Students' perceptions of their preferences in listening instruction

The participants' overall preferences regarding listening instruction included having the

opportunity to work on different types of listening comprehension questions (direct and indirect). They explained further that they did not only want to practice answering direct and easy questions. It was evident after examining the participants' answers from the Listening Comprehension Tests. It was found that the students had weaknesses with other types of questions, such as true or false, and in writing the correct answer, while they mostly excelled in answering MCQs.

Moreover, two of the participants suggested listening to the passage more than two times, especially if the passage was long or when listening during exams. They suggested listening to the passage at least three times. It should also be noted that those two participants were low-proficient listeners. Thus, such suggestion can be attributed to the proficiency level of the two participants, given that low-proficient listeners generally favour repetition until they reach a higher level of proficiency in L2 listening (Vandergrift, 1997). The final remark concerning the types of listening materials and topics presented in the coursebook was to include more interesting lessons that would enhance the motivation to learn English. Some participants suggested using songs and lyrics to boost their motivation in L2 listening. Others suggested using movie clips to watch and listen at the same time.

5.4 Summary

This chapter provided a discussion of the study's results. It examined the impact of strategy-based instruction on students' listening comprehension performance, as well as other individual factors, such as their self-efficacy, motivation to listen in L2, and their self-regulation demonstrated in their strategy use and metacognitive awareness. Moreover, the effects of the intervention on the interrelationships of affective, cognitive, and metacognitive factors were discussed in relation to previous findings in the L2 listening comprehension field. Finally, the chapter concluded with more discussion on the students' self-regulatory behaviours observed throughout the intervention, as well as students' perceptions of receiving listening strategy-based instruction.

Chapter 6 Conclusion

6.1 Introduction

The final concluding chapter highlights the major implications of the study's findings from the theoretical, methodological, and pedagogical points of view in Section 6.2. Next, the contribution of the study is presented in Section 6.3. The limitations of the current study are discussed in detail in Section 6.4. The potential directions for future research are addressed to provide insights into specific matters that need to be considered in forthcoming studies on L2 listening comprehension (Section 6.5). The concluding Section 6.6 summarises and provides final remarks for this study.

6.2 Theoretical and Pedagogical Implications

6.2.1 Theoretical and Methodological Implications of the Findings

From a theoretical perspective, the results indicate a positive interaction between (1) self-efficacy, (2) motivation, (3) self-regulation, and (4) metacognitive awareness among individual learners after the intervention. These findings accord with previous literature on the significant association between self-regulated learning and affective factors (Graham et al., 2020; Raoofi et al., 2012; Schunk, 1991; Zimmerman, 2000; 2002). Moreover, an important finding of this study is related to the robustness of motivational and self-regulatory variables in predicting self-efficacy.

This predictive role of motivation on self-efficacy can be considered an addition to the field of L2 listening literature, as most, if not all, of the previous studies only examined this relationship reciprocally, such as how self-efficacy can predict the motivation to learn a second language (Pajares, 1996; Schunk, 1991;1995; Zimmerman, 2000). Therefore, this study adds new insights into the field of second language learning by showing that motivational factors exert their influence on self-efficacy beliefs with the mediation of self-regulatory strategies. These findings also have practical pedagogical implications, which are discussed in the next section.

From a methodological standpoint, the present study's findings emphasise the value of mixed-methods analysis in investigating metacognitive listening strategies to achieve a more comprehensive understanding of the covert and complex processes of metacognition and listening comprehension (Mareschal, 2007; Smith, 2020). However, the integration of quantitative and qualitative data requires careful planning, including choosing appropriate methods for data collection and analysis. Additionally, a mixed-methods design should be informed by the research

question and the type of data needed to answer it.

In this study, the use of multiple sources and methods to collect and triangulate the data helped to increase both the validity and reliability of the results by reducing bias, increasing the consistency of the data, and adding more depth and richness to the findings. Moreover, each data collection tool utilised in this study contributed to answering the research questions of interest and served as a compensatory tool to make up for any flaws that may be found in another instrument. Considering the weaknesses and strengths of data collection tools is vital in producing justifiable results, especially when examining the intricate interplay between affective factors, learner metacognition, cognitive processes, strategic behaviours, and successful attainment in the context of L2 listening (Smith, 2020; Vandergrift & Goh, 2012).

6.2.2 Pedagogical Implications of the Findings

6.2.2.1 Metacognitive Strategy Instruction in Promoting Motivational Factors, Self-Regulation, and L2 Listening Proficiency

The findings of this study point to an important pedagogical conclusion that underscores the significant roles of both metacognitive and the self-regulatory process-based approaches in teaching L2 listening in a hybrid context. The integration of both Vandergrift's (2004; Vandergrift & Goh, 2012) metacognitive pedagogic sequence and Zimmerman and Moylan's (2009) three-phase cyclical model of self-regulated learning resulted in promoting learners' metacognitive awareness, strategic behaviours, self-efficacy, motivation, and successful listening outcomes. Some of the features embedded in the design of this instructional intervention that contributed to overall successful gains were:

- The explicit and guided instruction from the teacher on how to cluster and deploy self-regulatory strategies based on task demands;
- The principled and systematic instruction of self-regulatory behaviours, such as action planning, goal setting, help-seeking, problem-solving, and evaluation of strategy use;
- Raising learners' awareness of the different self-regulatory strategies through modelling;
- An explanation of the critical role of metacognition and strategy use in enhancing self-efficacy, motivation, and self-regulation in L2 listening;
- Adopting an interactive approach in listening instruction that combines top-down and bottom-up processing;
- Providing effective feedback on strategy use;
- Implementing vicarious observational learning;

- Organised strategy group discussions to facilitate sharing and exchanging issues pertinent to strategy use and the strategic adaptations needed to overcome L2 listening difficulties.

The results of the current study suggest that the implicit teaching of metacognitive process-based listening strategies through textbooks was insufficient to raise the learners' awareness of the strategy use and to build their metacognitive knowledge, which was observed in the results of the control groups. One reason behind this conclusion is that although the textbook used in this treatment implicitly introduced the metacognitive engagement approach, the experimental group outperformed its counterpart on multiple individual and cognitive variables and overall listening outcomes. This entails that explicit and guided strategy instruction is the key to fulfilling the major objectives of metacognitive strategy instruction (Cross, 2015; O'Malley & Chamot, 1990; Smith, 2020). As for motivation, Pintrich and Schrauben (1992) clarified that strategy knowledge may not be sufficient to motivate learners, but the actual use and deployment of learning strategies are strongly linked to student motivation. This held true for both groups in this study as both of them showed an increase in their motivation to listen because they both gained strategy knowledge and were given the opportunities to use them, albeit implicitly, with the control group.

Even through there was an improvement in the motivation levels of both groups in this study, however, the experimental group outperformed the control group in listening motivation after the intervention at Time 2. This can be linked to the way those students in the experimental group understood the significance of utilising effective strategies to learn. It made them more likely to engage in their learning process actively. Raising students' awareness about the importance of learning strategies can play a vital role in motivating them to learn. This was a key element underlying the effectiveness of the metacognitive strategy instruction of this study; to raise learners' awareness about the critical associations between metacognition, strategy use, self-efficacy, and listening outcomes. Therefore, educators must help students understand how strategies can enhance their understanding of L2 listening process in order to boost their perceived self-efficacy. By doing so, learners become more engaged and invested in their learning process, leading to potentially better academic performance and a more positive attitude toward learning.

Due to the above-mentioned reasons, teachers who would like to implement these approaches in their L2 listening instruction should consider the following three aspects (especially in a Saudi context):

(a) Careful planning of strategy instruction that includes encouraging learners to use their linguistic and discourse knowledge to activate schemata during the pre-listening stage (planning and prediction), to actively monitor and regulate their comprehension during

the listening stage (comprehension monitoring, inferencing), and finally to encourage learners to evaluate their monitoring and solve comprehension problems during the post-listening stage (evaluation, reflection, and problem-solving);

(b) Developing learners' problem-solving strategies by the repeated implementation of this pedagogic cycle and instructing them on how to orchestrate diverse strategies when facing listening difficulties; and

(c) Implementing a self-regulatory approach to generate self-regulatory behaviours along with metacognitive strategy instruction to ensure the development of learners' metacognitive knowledge, as well as enhancing their self-efficacy, and motivation, increase their self-regulation, and ultimately improve their comprehension outcomes (Goh, 2008; Goh & Taib, 2006; Graham & Macaro, 2008).

Designing a metacognitive strategy intervention must be conducted with careful planning. In this study, the theoretical underpinnings of a strategy programme were informed by the L2 listening literature and the analysis of the current strategic knowledge of the target population (Saudi EFL students).

Firstly, the design of the intervention was based on recent listening strategy theorists who emphasised the importance of clustering strategies, teaching strategies in clusters by combining both cognitive (bottom-up) and metacognitive (top-down) strategies and exposing learners to a wide range of strategies to expand their strategy repertoire (Conti & Smith, 2019; Graham & Macaro, 2008). Therefore, instead of teaching individual strategies in dedicated lessons, strategy instruction has to be integrated into normal listening activities, where learners are taught how to apply those strategies effectively according to the task demands. For instance, learners can deploy cognitive listening strategies, such as focusing on the main ideas, identifying supporting details, and making inferences, by actively engaging with the content and paying attention to the speaker's delivery. They could also deploy metacognitive listening strategies, such as monitoring their comprehension, evaluating their understanding, and adjusting their listening approach if necessary. This may be achieved by periodically reflecting on their understanding of the material, asking questions to clarify information, and seeking additional resources to aid their comprehension. The coordination of both cognitive and metacognitive listening strategies can facilitate learners' overall listening skills and increase their understanding of the content.

Adopting the interactive approach in teaching listening strategies (top-down and bottom-up) positively enhanced students' self-confidence. When learners fail to make sense of the text through bottom-up processing, they can alter their strategic behaviour to use other compensatory

strategies (top-down) to cope with the listening difficulties and experience success in understanding the 'details' and 'opinions' of the passage they hear (Graham & Macaro, 2008, p. 772). By doing so, learners would gain more control over their listening process, but it also allows them to experience success (mastery experience). The success may be attributed to factors under their control, which could, in turn, enhance their self-efficacy in listening (Bandura, 1997).

Secondly, the decision to adopt Vandergrift's (2004) metacognitive approach was made based on the findings of investigating Saudi EFL students' strategic knowledge in L2 listening. Previous studies provided strong evidence of Saudi EFL students' excessive reliance on cognitive (bottom-up) strategies at the expense of metacognitive and socio-affective strategies (Al-Malki, 2018). It can be potentially related to the predominant teaching methodology that students underwent in their public schools, where the main focus was on developing decoding and cognitive skills in listening. Thus, it is not surprising that the teachers in public schools paid more attention to strategies like 'linguistic inferencing', 'summarising', 'repetition', and also 'translation' to address students' limited linguistic and discourse knowledge.

It further explains why the participants in this study favoured cognitive strategies, such as mental translation and inferencing, at the beginning of the intervention (Time 1), which can sometimes be considered harmful. For instance, mental translation can interfere with the ability to fully comprehend and engage with the content of the speech, particularly in more complex or nuanced situations. It can also lead to a cognitive overload, making it difficult for listeners to keep up with the flow of the conversation and retain information. Additionally, if the source and target languages are too different, mental translation may not always be accurate, leading to critical misunderstandings. Therefore, it is important for learners to find a balance between relying on cognitive and metacognitive strategies, while also considering their own level of language proficiency and the situational context.

Likewise, the decision to implement Zimmerman and Moylan's (2009) model of self-regulated learning into the intervention programme was due to the negative affective factors that Saudi EFL students demonstrated when listening in L2, such as anxiety, low-motivation and low self-efficacy levels (Al-Seghayer, 2011; Hamouda, 2013). High levels of self-efficacy and motivation are often attributed to factors within individuals' control to successfully accomplish tasks. Conversely, low levels of self-efficacy are attributed to factors beyond individuals' control, which lead to failure and lack of success (Bandura, 1997). Based on this interpretation, the reason behind Saudi EFL learners' low self-efficacy in L2 listening can be attributed to their view of the listening process as being 'uncontrollable' (Conti & Smith, 2019, p. 216). Such a view is related to the ephemeral and transient nature of listening, which refers to the idea that listening is a temporary and transitory

experience. Also, the aural input can easily be forgotten or dismissed once the listener is no longer engaged in the act of listening, unlike written or recorded information that can be easily referenced and reviewed.

Additionally, listening can be influenced by external factors such as distractions or the listener's mental and emotional state, which can impact their ability to retain information. This transient nature of listening highlights the importance of actively engaging with what is being listened to and taking steps to retain and process the information. One way to accomplish this is through teaching learners appropriate self-regulatory strategies, so that when learners develop strategies, they take a proactive approach to exert control over the outcome of their listening comprehension. This approach makes them feel more self-confident and motivated to actively engage in L2 listening.

Looking at the situation through the lens of self-efficacy theory, understanding the way in which EFL/ESL students perceive their own ability to learn L2 listening can assist in designing and executing effective L2 listening strategies. This, in turn, may reduce any negative thoughts or feelings they may have held about their learning aptitude. In addition, educators must carefully consider the motivational mindsets of their students, particularly their individual interests, the importance they attach to the task, and their positive and negative emotional reactions. These attitudes are important because they can shape the readiness of language learners to participate in future activities.

The effective implementation of L2 listening strategies in an educational context demands a comprehensive understanding of their nature and practical applications (Conti & Smith, 2019). The process of employing L2 listening strategies is indeed complex, as it entails the harmonious integration of pedagogical methods, instructional techniques, and the unique needs and individual differences of students (Vandergrift & Goh, 2012). For teachers to navigate this complexity, they must first grasp the fundamental concepts surrounding L2 listening strategies and comprehend the rationale behind their utilization. This comprehension involves recognizing the theoretical underpinnings of various strategies and discerning their potential benefits in facilitating the learning process.

Once a teacher has developed a robust foundational understanding of L2 listening strategies, s/he can embark on the path of adaptation and modification. This phase is instrumental in tailoring strategies to suit specific learning needs, student demographics, and curricular requirements. Experienced educators, while they may possess a wealth of knowledge and teaching prowess, can sometimes become confined by rigid adherence to established pedagogical practices, such as the case in this study. In such cases, there is a potential for missing out on different, creative, and

situationally relevant approaches in effective strategy instruction. Therefore, it is imperative for teachers and educators to transcend the boundaries of traditional teaching methods, experiment with modifications to existing strategies, and critically evaluate the outcomes of such adaptations. This iterative process of exploration, experimentation, and evaluation ensures that teaching L2 listening strategies remain responsive to the dynamics of teaching and developing L2 listening skill, fostering a richer and more adaptive educational experience for both teachers and students. In doing so, teachers and educators contribute to the advancement of pedagogical practices and the realization of more effective and tailored L2 listening outcomes (Lu, 2018).

It is important to note that implementing metacognitive strategies can sometimes be challenging, especially if students are accustomed to relying on other cognitive strategies, such as mental translation, inferencing, and repetition (Chamot, 1984). This transition may require more time and guidance. Teachers should be patient and provide support as students adapt to these new approaches. It is crucial to help students understand the benefits of metacognitive strategies, such as monitoring, evaluation, and problem-solving abilities. For instance, introducing self-reflection to students and giving them the opportunity to constantly practice self-reflection and self-evaluation inside the classroom would let them exercise agency and control over their learning process and alter their thinking and actions through self-reflective evaluation (Bandura, 1986; Ortega, 2023). As a result, students will be more confident and motivated to self-regulate their learning process (Bandura, 1997). However, some students tend to avoid self-assessment and prefer teacher-driven evaluations (especially Saudi EFL learners). This preference poses a challenge for educators, who must negotiate a balanced approach (Ortega, 2023). This negotiation encourages students to actively engage in their learning, fostering self-reflection and self-regulation skills. Ultimately, it would eventually promote autonomy, metacognition, and deeper self-awareness within the learning process.

Moreover, by combining metacognitive with cognitive strategies, educators create a balanced learning environment that encourages students to not only absorb information but also to think critically about how they are listening in L2. This holistic approach prepares students for a lifelong journey of self-directed and meaningful learning. It fosters the development of essential skills that extend far beyond the classroom, enabling students to become adept at problem-solving and self-assessment in various facets of their lives.

Strategies are versatile tools that can extend their influence across a wide spectrum of skills and competencies (Field, 2019; Graham & Macaro, 2008; Oxford, 1990). A notable illustration of this adaptability is the application of listening strategies, which, in practice, can transcend the confines of mere listening proficiency and effectively impact other language-related skills such as speaking,

reading, and writing (Gilakjani & Ahmadi, 2011). For instance, when learners employ listening strategies in their speaking endeavours, they become more adept at effective communication. They can grasp the nuances of pronunciation and intonation, which, in turn, enable them to express themselves with greater clarity and precision. In this way, the strategic competence developed in listening directly benefits speaking proficiency. Similarly, the deployment of listening strategies can bolster reading and writing skills. When individuals listen actively and apply comprehension techniques, they not only comprehend spoken words but also comprehend written words more effectively. Likewise, the ability to infer meaning from context, honed through listening, aids in understanding the meaning of words and phrases encountered during reading. As listening strategies involve recognizing structural elements in spoken language, this skill can be transferred to recognizing grammatical structures and text coherence when writing.

In addition, educators should recognize that careful and empathetic listening is a life skill with wide-ranging implications. When individuals actively cultivate their capacity to listen attentively, they not only enhance their understanding of spoken and unspoken communication but also foster stronger and more meaningful connections with others. The ability to genuinely listen can foster social relationships, facilitate conflict resolution, and even drive professional success, as it promotes effective teamwork, leadership and interactions (Vandergrift & Goh, 2012).

Examining the permanence of learning and long-term changes in strategic behaviour is a significant and valuable pursuit within the realm of L2 development and cognitive psychology. Therefore, one of the future plans of this study is to involve conducting longitudinal research to understand not only how individuals acquire L2 listening knowledge, skills and strategies, but also how these strategies will evolve and persist over time.

6.3 Contribution of the Study

This study has made several contributions to the field of L2 listening research:

- The study's findings have significant theoretical contributions to the field of L2 listening as they demonstrate a positive correlation between individual learners' self-efficacy, motivation, self-regulation, and metacognitive awareness following the intervention. Additionally, the study's novel finding is the strong predictive role of motivation and self-regulation on self-efficacy, which adds to the existing literature that primarily focuses on the reciprocal relationship between self-efficacy and motivation. Thus, the study offers new insights into the field of L2 learning by illustrating how motivational factors impact self-efficacy beliefs with the mediation of self-regulatory strategies.

- This study also contributes to the field of L2 listening by highlighting the vital roles of metacognitive and self-regulatory process-based approaches in teaching L2 listening in a hybrid context. By incorporating Vandergrift's (2004; Vandergrift & Goh, 2012) metacognitive pedagogic sequence and Zimmerman and Moylan's (2009) three-phase cyclical model of self-regulated learning, the study shows that learners' metacognitive awareness, strategic behaviours, self-efficacy, motivation, and listening outcomes can be effectively enhanced even when teaching large class sizes, which is considered challenging to maintain student engagement and keep everyone on task.
- Pedagogically, this study emphasizes the importance of explicit and guided instruction on self-regulatory strategies to achieve successful listening outcomes. The study also suggests that implicit teaching of metacognitive process-based listening strategies is not sufficient to raise learners' awareness of strategy use and to build their metacognitive knowledge. This was evident in the results which showed that explicit instruction and guidance on how to cluster and deploy a repertoire of self-regulatory strategies based on task demands played a critical role in achieving successful listening outcomes. Such findings provide more insights to the L2 listening teachers and educators on how to tailor their instruction to better meet their students' needs in L2 listening comprehension.

6.4 Limitations of the Study

While this study provides valuable insights concerning the impact of metacognitive strategy instruction on learners' affective factors, self-regulation, and listening proficiency, it is not without its limitations. These limitations are:

- Not prioritising the investigation of learners' linguistic knowledge and their vocabulary acquisition;
- Limited time to carry out the intervention, leading to the cancellation of the delayed post-test;
- Not exploring the effects of the intervention on various levels of English proficiency within the experimental group;
- Restricted opportunities to provide the teachers with the necessary training to implement effective metacognitive strategy instruction;
- The study's sample was limited to Saudi learners, which may limit the generalisability of the findings beyond this specific cultural context.

Although some studies indicate that listening strategies can be utilised regardless of language proficiency levels (Goh, 1998; Vandergrift, 2003b), it is necessary to consider the level of linguistic knowledge of the learners to determine if vocabulary size plays a role in moderating the results. However, due to the lack of formal assessment of learners' vocabulary size, this study did not address linguistic knowledge as a moderating factor that might influence metacognitive knowledge and strategy use.

Due to time constraints (only 13 weeks to carry out the intervention), the proposed delayed post-test phase (Time 3) had to be cancelled. This cancellation affected the investigation of learners' motivational change and the transferability of the taught strategies from one context to another. In order to explore the changing dynamics of motivation in a more detailed way, it would be preferable to conduct a longitudinal study instead, using multiple measures (Busse & Walter, 2013). A longitudinal study would enable researchers to track the changes in motivation over time, which would provide a more in-depth understanding of the factors that influence learners' motivation in L2 listening. Also, one of the shortcomings of eliminating delayed post-test was the inability to investigate the transferability of acquired strategies and analysing strategy use after the intervention. Examining the transferability of strategy use following the intervention would add more value to the findings because it would explain whether the utilisation of strategies was temporal (merely a response to receiving the intervention) or permanent (learners developed an unconscious automatization of processing strategy use).

Another limitation is related to the impact of metacognitive strategy instruction on different proficient listeners within one group. Unlike other studies that examined the effect of metacognitive strategy instruction on high- and low-proficient listeners and explored how the extent of the improvement may differ between the two groups (Goh & Taib, 2006; Vandergrift & Tafaghodtari, 2010; Zhang & Zhang, 2017), this study only investigated the impact of the intervention on learners with mixed-proficiency levels within the experimental group in comparison to those who did not receive the treatment (the control group).

In spite of the development of listening skills being a crucial aspect of language learning and requires effective instruction from teachers. However, teaching listening strategies effectively can be challenging, as it involves more than just teaching students how to understand words and phrases. Teachers need to be trained in various techniques and approaches to help students become active listeners and develop critical thinking skills. This is why teacher training is an essential requirement to teach students listening strategies. Moreover, effective teacher training can help teachers learn how to design appropriate listening tasks, select appropriate materials, and use various strategies, such as pre-listening activities, guided listening, and post-listening

activities. However, according to Kiely and Davis (2010), teachers tend to take a slow and gradual approach when it comes to changing teaching practices, as they need time to incorporate new ideas into their classrooms. Due to time constraints, this study could not provide the teachers with sufficient time to fully solidify their understanding and implementation of the new teaching approach, which is the metacognitive strategy instruction to teach listening comprehension.

Finally, it is important to note that the participants in the study were exclusively Saudi female learners, which means that the findings cannot necessarily be generalised to males or other contexts. Therefore, it is important to consider the potential limitations of the findings and strive for a more comprehensive understanding of gender differences by expanding the study to include both males and females in different EFL/ESL contexts.

6.5 Potential Directions for Future Studies

The current study has investigated the impact of metacognitive strategy instruction on EFL students' metacognition, self-regulation, self-efficacy, motivation, and listening proficiency. However, it highlights certain issues that should be considered in future L2 listening comprehension research.

Although this study explored the interrelationships between certain affective factors, including self-efficacy and motivation, in relation to metacognitive awareness and self-regulation and emphasized the positive correlational and predictive roles of some variables to others, further research is still recommended. Future research could consider investigating the causal relationships among those individual and motivational variables through a hypothetical structural model to gain a fuller understanding of how such variables are interconnected as a result of receiving explicit strategy instruction.

Further research could also explore how these psychological and individual variables interrelate and impact learning outcomes in contexts outside of Saudi Arabia in order to draw comparisons and validate the results with other language learners. Additional studies could investigate both males and females to examine how they would respond differently to the intervention or treatment in order to better understand whether the findings are generalisable to both genders. This could help ensure that the results are more representative of the population and can be used to inform interventions and policies that aim to improve listening strategy instructions in the field.

To better understand how metacognitive strategy instruction can impact on an individual's self-efficacy, motivation, and listening comprehension abilities over a more extended period, it would be more beneficial to create a long-term programme and conduct a delayed post-test at a later

point in time. Also, when considering the design of intervention studies in L2 listening, it is important to not only prioritise the involvement of researchers but also take into account the needs and recommendations of teachers (Lu, 2018). For example, it would be helpful to account for how well teacher education programmes are preparing future language instructors with the necessary skills to teach and select appropriate listening tasks for their students based on aspects of theory and pedagogy.

In the context of measuring self-efficacy, Bandura (2006) introduced the notion of 'can' statements, which serve as a more comprehensive scale for assessing self-efficacy levels. Drawing from Bandura's work (2006) on self-efficacy measures, it is recommended to change the wording of the Likert rating labels of the English Listening Self-Efficacy Scale from the conventional binary distinction of 'sure' and 'not sure' into 'I always can' and 'I mostly can'. This modification aligns with the cognitive processes involved in self-efficacy judgments, offering researchers and practitioners a more accurate and insightful means of assessing and addressing self-efficacy beliefs in educational and skill development contexts.

6.6 Conclusion

The main aim of this study was to investigate methods for improving L2 listeners' proficiency, self-efficacy, motivation, and self-regulation. One way to accomplish this goal was by developing and implementing an overarching framework to design an instructional intervention, which integrates both self-regulatory and metacognitive process-based approaches to listening comprehension. The design of the intervention was informed by the literature on successful L2 listeners, experiences gained through previous implementations of effective strategy instruction programmes, and the analysis of strategy knowledge held by Saudi EFL students at the tertiary-level. To achieve the ultimate goal of enhancing learners' self-efficacy, motivation, self-regulated learning, and improving their listening proficiency, an intervention in strategy instruction was designed, incorporating specific features that distinguished it from previous designs.

Some of those features included a clear explanation of the close connection between strategy deployment and other affective factors, particularly self-efficacy and motivation, providing necessary feedback, integrating various observational learning techniques, teaching students how to apply strategies in clusters in relation to different tasks, and addressing learners' needs when designing the intervention to ensure positive outcomes. The results of the quasi-experiment found clear support for the importance of explicit metacognitive strategy instruction in improving learners' metacognitive self-regulation, affective factors, and overall listening proficiency development. Moreover, the key contribution of this study is conducting the intervention in two

different instructional modes: face-to-face and virtual teaching. Through teaching two groups simultaneously in a synchronous hybrid learning environment, this study tackles some of the challenges educators and students face when using real-time audio and video technology to facilitate interaction between two groups. Although this study explored students' perceptions of this hybrid approach, the teachers' experiences with this approach are yet to be examined.

An academic perspective underscores the intricate nature of teaching L2 listening strategies within Saudi mixed-ability university classrooms. This pedagogical endeavour does not follow a linear trajectory but, instead, demands the skilful orchestration of a diverse range of strategies tailored to the unique needs of students. The central conclusion drawn from this study illuminates that teaching L2 listening transcends the mere assessment of comprehension. Rather, it delves into the intricacies of students' L2 listening processes and aims to enhance their strategic competencies in the realm of L2 listening development.

This realization necessitates a concurrent understanding of the disparities in students' L2 listening abilities and motivations within the EFL classroom. In practical terms, it calls for heightened attention to task design, the careful selection of engaging instructional materials, and the incorporation of research-supported methodologies. These measures are indispensable when addressing the multifaceted skill set required for effective L2 listening. By embracing these principles, teachers and educators can embark on a journey that not only fosters comprehension but also nurtures the art of strategic L2 listening within a diverse student body.

Appendix A English Listening Comprehension Test

(Time 1)

A.1 Short Listening Comprehension Test (Part A)

_ _

1 Write the correct numbers in the blank.

Credit Card Charge Form	
Card Holder:	Roger Wilcox
Address:	13 High Street
Card Number:	.....

2 How many seats are there in the new theatre?

A 200

B 250

C 500

3 Write the correct numbers in the blank.

Name	**Phone**
Roberts, Sherry	.....

4 How much will the woman pay for the hotel room?

A $255

B $265

C $315

0

5 Write the correct numbers in the blank.

Loat Luggage Report	
Passenger Name:	Richard Lyons
Flight Number:	………………………..

A.2 Long Listening Comprehension Test (Part B)

Listen to the conversations and choose the correct letter, **A**, **B**, or **C**.

Example

What is the man doing?

A Shopping at the mall

√ B Asking shoppers questions

C Looking for a certain shop

_ -

6 The interviewer wants to find out about

A when the mall is open

B people's shopping habits

C the best stores in the shopping centre

7 The interviewer wants to speak with

A married women

B any shopper

C children

8 What is the respondent's age?

A 18 – 25

B 26 – 35

C 36 – 45

9 How often does the respondent shop at the mall?

A Less than once a month

B Once a week

C Two or more times a week

10 What does the respondent usually shop for?

A Clothes

B Books

C Groceries

11 How much time does the respondent usually spend at the mall?

A One hour or less

B Between one and two hours

C More than two hours

12 What method of transportation does the respondent use to get to the mall?

A Car

B Bus

C Subway

End of Listening Comprehension Test 1

Appendix B English Listening Comprehension Test

(Time 2)

B.1 Short Listening Comprehension Test (Part A)

Listen to the conversations and choose the correct letter, **A**, **B**, or **C**.

Example

What does the woman say about the book?

A She couldn't read it

√ B She was able to read it

C She enjoyed reading it

_ _

1 What describes the weather in the region?

A rainy

B dry

C cloudy

2 When taking the exam, the students can

A take as much time as they need

B use a dictionary

C bring several things into the testing room

3 When will the car be fixed?

A today

B before the end of the week

C on the weekend

4 What is the woman's opinion of the restaurant?

A The food is good

B The service is bad

C The wait is too long

5 Which type of flower is not common in the area?

0

A violets

B roses

C iries

6 What homework does the man have to do this week?

A write papers and read books

B write papers only

C study for exams

B.2 Long Listening Comprehension Test (Part B)

Choose the correct letters, **A**, **B**, or **C**.

7 The woman bought her glasses in

A Germany

B Italy

C France

8 What do the woman's glasses look like?

A round

B square

C oval

9 Where was the woman sitting when she lost her glasses?

A By the window

B Next to the door

C In the train station

10 What was the woman reading?

A A book

B A newspaper

C A magazine

11 Where was the woman going on the train?

A Home

B To work

C To visit her aunt

12 What time did the train arrive?

A 5:00

B 10:00

C 10:50

13 Where did the woman find her glasses?

A inside her handbag

B on her seat

C inside her coat pocket

End of Listening Comprehension Test 2

Appendix C The English Listening Self-Efficacy and Motivation Scale & Demographic Information (English Version)

C.1 The English Listening Self-Efficacy and Motivation Scale & Demographic Information

This questionnaire can be filled either in Arabic or English. You can choose the preferred language from the top of the page.

Purpose

To explore your sense of self-efficacy in connection with English listening comprehension; in other words, it explores to what extent you felt you have the ability to successfully perform English listening activities. It also examines your motivation and attitude towards English listening comprehension.

The Completion

The time to complete the survey is about 10 minutes.

Confidentiality

All collected information from the survey is strictly following the obligation of confidentiality. The results will only be published in aggregate form. There is no reason or under any circumstances the individual participant results will be disclosed.

Important

Your participation is completely voluntary. Your decision whether or not to participate will have no effect on your grades or academic standing. You have the total right to stop the questionnaire at any questions, and your answers will be removed automatically.

If you have any enquiries, please do not hesitate to contact the researcher:

Omnia Rawa

PhD student in Applied Linguistics and English Language Teaching

University of Southampton

okar1n18@soton.ac.uk

If you have read and understood the above consent to participate in this study, please click on NEXT button below.

The English Listening Self-Efficacy Scale

Listed below are statements about listening. Please read each statement carefully. This is not a test, so there are no "right" or "wrong" answers. By responding to these statements, you can help yourself and your teacher understand your progress in learning to listen.

Section 1: English Listening Self-Efficacy Scale

Please indicate your opinion after each statement. Circle the number which best shows your level of agreement with the statement.

Please circle only **ONE** number for each statement

A. How sure are you that you can listen and …

Statement	**Not Sure**	**Somewhat Unsure**	**Fairly Sure**	**Very Sure**	**Completely Sure**
1. understand the gist of what you hear from introduction to conclusion.	1	2	3	4	5
2. understand the details of the text.	1	2	3	4	5
3. guess the meaning of unknown words.	1	2	3	4	5
4. understand the speaker from intonation and pauses.	1	2	3	4	5
5. take notes when listening.	1	2	3	4	5
6. go on to the next part even though you stuck on a question.	1	2	3	4	5

End of Section 1. Please click NEXT for Section 2

Appendix C

Section 2: Source of Self-efficacy Information Scale

Please indicate your opinion after each statement. Circle the number which best shows your level of agreement with the statement.

Please circle only **ONE** number for each statement

	Statement	**Not Sure**	**Somewhat Unsure**	**Fairly Sure**	**Very Sure**	**Completely Sure**
PS	1. Listening to English is a pleasant activity for me.	1	2	3	4	5
VP	2. My classmates think that I listen pretty well.	1	2	3	4	5
PO	3. I understand what I listen to better than I could before.	1	2	3	4	5
SA	4. I can make a plan about the listening task before I begin to listen.	1	2	3	4	5
SA	5. I have the ability to concentrate on the content to which I listen.	1	2	3	4	5
SA	6. I know what strategies to use when I listen to English.	1	2	3	4	5
PS	7. I feel more comfortable listening while reading the transcript of the speech. [Reversed]	1	2	3	4	5
PO	8. I can concentrate more when I listen than I could before.	1	2	3	4	5
PS	9. When listening to English, I get nervous when I don't understand every word. [Reversed]	1	2	3	4	5
VP	10. People in my family think I am a good English listener.	1	2	3	4	5
SA	11. I can understand what I listen to even if I don't know several vocabulary items.	1	2	3	4	5
PS	12. I feel good about my listening comprehension skill.	1	2	3	4	5
VE	13. I am more confident in my listening skill than other students. [Reversed]	1	2	3	4	5

* [**PO** = Performance Outcomes], [**VE** = Vicarious Experience], [**VP** = Verbal Persuasion], [**PS** = Physiological State], [**SA** = Strategic Awareness]

End of Section 2. Please click NEXT for Section 3

Section 3: The English Listening Comprehension Motivation Scale

The following statements are about your own attitudes, concepts, or situations of learning English listening comprehension. Please circle the scale in terms of how well the statements reflect your actual experience, thoughts, and feelings when you are learning listening comprehension.

Please indicate your opinion after each statement. Circle the number which best shows your level of agreement with the statement.

Please circle only **ONE** number for each statement

	Statement	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Partly Agree**	**Agree**	**Strongly Agree**
POS	1. I like English listening materials that can arouse my interest in learning.	1	2	3	4	5	6
POS	2. In order to improve my English listening comprehension, I will try to do the homework well and often spend time practicing it.	1	2	3	4	5	6
NEG	3. I often feel nervous and uncomfortable when learning English listening comprehension.	1	2	3	4	5	6
POS	4. I like to learn English listening comprehension because it is very important, and I feel confident of learning it well.	1	2	3	4	5	6
POS	5. I attend English comprehension classes in earnest because I want to develop my listening skills and ability in to use it in the future.	1	2	3	4	5	6
POS	6. I hope I can perform better in English listening comprehension than others.	1	2	3	4	5	6

POS	7. I would like to learn English listening comprehension well because I want to make friends with English speakers and hope to be able to go abroad for advanced study in the future.	1	2	3	4	5	6

* [**POS** = Positive], [**NEG** = Negative]

End of Section 3. Please click NEXT for Section 4

Section 4: Demographic Information

1. Age: _____

2. Did you have English listening classes in high school? Yes __ No __

3. Have you had an English listening class in college (or outside college) prior to this one? Yes__ No __

4. Do you participate in English listening activities outside the English listening class? Yes__ No__

5. Approximately what percent of time do you listen to English language media (e.g., movies, songs, news, etc.)

   0 10 20 30 40 50 60 70 80 90 100 %

6. How often do you have contact with English native speakers outside the English class?

   Not at all___ Not often___ Sometimes___ Often___ Very often___

7. Have you ever travelled or lived-in English-speaking countries for more than three months? Yes__ No__

8. When did you start to learn English? From _____
   pre-school_____ elementary school____ 1st year in junior high school____

9. How many years have you been learning English? _____

10. Do your parents (or close family members) speak English well? Yes__ No__

11. Do you (or your close family members) speak more than one language at home? Yes__ No__

End of the questionnaire. **Please make sure that you answered all the questions.**

Thank you!

Appendix D The Metacognitive Awareness Listening & Self-Regulated Listening Strategy Questionnaire (English Version)

D.1 The Metacognitive Awareness Listening & Self-Regulated Listening Strategy Questionnaire

This questionnaire can be filled either in Arabic or English. You can choose the preferred language from the top of the page.

Purpose

To monitor learners' metacognitive strategic awareness and use, and the effects on their L2 listening performance

The Completion

The time to complete the survey is about 10 minutes.

Confidentiality

All collected information from the survey is strictly following the obligation of confidentiality. The results will only be published in aggregate form. There is no reason or under any circumstances the individual participant results will be disclosed.

Important

Your participation is completely voluntary. Your decision whether or not to participate will have no effect on your grades or academic standing. You have the total right to stop the questionnaire at any questions, and your answers will be removed automatically.

If you have any enquiries, please do not hesitate to contact the researcher:

Omnia Rawa

PhD student in Applied Linguistics and English Language Teaching

University of Southampton

okar1n18@soton.ac.uk

If you have read and understood the above consent to participate in this study, please click on NEXT button below.

Section 1: The Metacognitive Awareness Listening Questionnaire (MALQ)

The statements below describe some strategies for listening comprehension and how you feel about listening in the language you are learning. Do you agree with them?

This is not a test, so there are no "right" or "wrong" answers. By responding to these statements, you can help yourself and your teacher understand your progress in learning to listen.

Please indicate your opinion after each statement. Circle the number which best shows your level of agreement with the statement.

Please circle only **ONE** number for each statement

Strategy Type	Statement	Strongly Disagree	Disagree	Slightly Disagree	Partly Agree	Agree	Strongly Agree
MET	1. Before I start to listen, I have a plan in my head for how I am going to listen.	1	2	3	4	5	6
MET	2. Before I listen, I think of similar texts that I may have listened to.	1	2	3	4	5	6
COG	3. I translate in my head as I listen.	1	2	3	4	5	6
COG	4. I use the words I understand to guess the meaning of the words I don't understand.	1	2	3	4	5	6
MET	5. I have a goal in mind when I listen.	1	2	3	4	5	6
COG	6. As I listen, I quickly adjust my interpretation if I realize it is not correct. [Reversed]	1	2	3	4	5	6
MET	7. I try to get back on track when I lose concentration.	1	2	3	4	5	6
MET	8. I focus harder on the text when I have trouble understanding.	1	2	3	4	5	6
SOA	9. I don't feel nervous when I listen to English. [Reversed]	1	2	3	4	5	6
COG	10. I use the general idea of the text to help me guess the meaning of the words I don't understand. [Reversed]	1	2	3	4	5	6
MET	11. As I listen, I periodically ask myself if I am satisfied with my level of comprehension.	1	2	3	4	5	6

MET	12. When I have difficulty understanding what I hear, I give up and stop listening.	1	2	3	4	5	6
MET	13. I translate key words, as I listen.	1	2	3	4	5	6
COG	14. When I guess the meaning of a word, I think back to everything else I've heard, to see if my guess makes sense.	1	2	3	4	5	6
COG	15. I translate word by word, as I listen.	1	2	3	4	5	6
MET	16. When my mind wanders, I recover my concentration right away.	1	2	3	4	5	6
COG	17. I use my experience and knowledge to help me understand.	1	2	3	4	5	6
COG	18. As I listen, I compare what I understand with what I know about the topic.	1	2	3	4	5	6
MET	19. After listening, I think back to how I listened, and about what I might do differently next time.	1	2	3	4	5	6
SOA	20. I feel that listening comprehension in English is a challenge for me.	1	2	3	4	5	6
SOA	21. I find that listening in English is more difficult than reading, speaking, or writing in that language.	1	2	3	4	5	6

* [**MET** = Metacognitive], [**COG** = Cognitive], [**SOA** = Socio-affective]

End of Section 1. Please click NEXT for Section 2

Section 2: Self-Regulated Listening Strategy Questionnaire (SLSQ)

Self-regulatory behaviours in listening						
Statement	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Partly Agree**	**Agree**	**Strongly Agree**
1. I understand the nature and purpose of listening and the task type	1	2	3	4	5	6
2. I can set listening goals for myself	1	2	3	4	5	6
3. I can orchestrate a broader spectrum of cognitive listening tactics to infer, predict, contextualize, visualize, elaborate, or to reconstruct meaning of the oral text.	1	2	3	4	5	6
4. I can link what I hear to related questions while listening	1	2	3	4	5	6
Meta-Affective Listening Strategies						
Statement	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Partly Agree**	**Agree**	**Strongly Agree**
5. I notice if I am tense or nervous when listening to an English passage [Reversed]	1	2	3	4	5	6
6. I try to relax whenever I feel nervous while listening	1	2	3	4	5	6
7. I organise my English listening learning so that I always enjoy doing it	1	2	3	4	5	6
Meta-Sociocultural-Interactive Strategies						
Statement	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Partly Agree**	**Agree**	**Strongly Agree**
8. I try to learn about English-language cultures through improving my listening comprehension skills	1	2	3	4	5	6

9. I watch and listen to English-language TV shows, movies to get to know the cultures of English native speakers through English.	1	2	3	4	5	6
10. Getting to know English-language cultures helps me to learn the language.	1	2	3	4	5	6
Seeking Social Assistance Strategies						
Statement	**Strongly Disagree**	**Disagree**	**Slightly Disagree**	**Partly Agree**	**Agree**	**Strongly Agree**
11. I consult the teacher when I encounter difficulties during listening comprehension process	1	2	3	4	5	6
12. I ask classmates when I have questions related to learning listening	1	2	3	4	5	6

End of the questionnaire. **Please make sure that you answered all the questions.**

Thank you!

Appendix E Stimulated Recall Protocol

E.1 Stimulated Recall Protocol

In order to better understand what you were thinking and doing mentally while listening to the passage, a stimulated recall session will be conducted immediately after completing the multiple-choice questions of the final long listening comprehension passage.

You will be given full control of the recording and to pause it while responding to the following questions:

1- *What did you understand when you listen to the conversation?*
2- *What ways did you use to understand the conversation?*
3- *How did you deal with listening difficulties?*
4- *Why did you write down these notes?*
5- *What were you thinking about when you wrote X?*
6- *Is there any additional information or commentary you would like to provide regarding this portion?*
7- *Did any other thoughts come to mind?*
8- *Do you self-evaluate your performance after listening?*

Appendix F **Stimulated Recall Sessions**

F.1 Audio Script[12] (Time 1)

So, for my presentation today, I'm going to talk about multicultural families. People travel a lot more these days, so more and more people get married to someone from another country. Often, couples meet because they move to different countries to work. They usually speak different languages but communicate in a common language. For example, Annika, from Denmark, is married to Pierre, from France. And at home they speak to each other in German as their common language. In these multicultural families, the children often learn two or three languages from their mother and father. Annika and Pierre's children speak Danish, French and German, but the family also sometimes use English and the children use it at school. In fact, the children prefer speaking English because they say it is easy.

Nowadays, millions of people speak international languages such as Arabic and Spanish, but English has the most speakers in the most countries around the world. It is a very important language for work, study and travel. There were about 350 million native speakers and about 850 million people speak it as a second language.

Multicultural families use it for a number of reasons. Some families use English because it is easier for the children to learn just one main language. Also, children around the world hear lots of English in their daily lives. English is the language of films, pop, music, and many sports like football. Children are often interested in these things and speaking English makes it possible for them to understand them more easily. In multicultural families, children are often able to use English because their parents use it as a second language. Some people say that people use English too much, but it is difficult to tell people what language they should speak. Multicultural families are an interesting example of this in real life.

---

1 ▷ Listen to the presentation. Circle the correct answer (a, b or c) to complete the sentences.

1 Married couples from different countries often meet because of their _____.

a families

b jobs

c holidays

[12] Taken from: Listening (A2 Progress Test 1) (Units 1-3)

2 Annika and Pierre talk to each other in _____ at home.

a Danish

b French

c German

3 Annika and Pierre's children like to speak _____ the most.

a English

b German

c French

4 Many people speak international languages like _____.

a German

b Danish

c Arabic

5 In multicultural families, children often learn English because their parents _____.

a speak it as a second language

b live in foreign countries

c watch sports like football on TV

Answer Key

1 b 2 c 3 a 4 c 5 a

---

2 ▷ Listen to the presentation again. Are the sentences true (T) or false (F)?

1 Fewer people get married to someone from another country these days. _____

2 Annika and Pierre's children speak English at school. _____

3 350 million people speak English as second language. _____

4 People around the world hear English a lot. _____

5 It isn't easy to tell people what language they should speak. _____

Answer Key

1 F 2 T 3 F 4 T 5 T

F.2 Audio Script[13] (Time 2)

Whenever we are presented with choices, we are influenced by the context in which this takes place and the language that is used to present those choices. Marketing companies have of course been aware of this for many years and use it to good effect, but the idea originally doesn't come from business studies, but from psychology. Following on from the work of famous psychologists such as Daniel Kahneman, in the second half of the 20th century, there has been considerable interest in the psychology of customer behavior and the techniques used by companies to persuade consumers to buy more.

Studies have shown that people respond more to emotional appeals than factual information about features and functions. Consumers want to know how a product will improve their life, how it will make them a better person, not just what it does and how it works. Incredibly, you can tell people that product A is better than product B, and you can even explain why product A is better than product B, what features it has, things like that, but if you show them an advertisement for product B that has real emotional appeal, they are much more likely to want product B. Yes, even though they know product A has better features, they'll still choose product B!
It's extraordinary, really, how powerfully our hearts pull us away from what our minds know.

Another technique that companies use is to make consumers think differently about the competition – other companies who are trying to sell the same product or service. Obviously, they aren't allowed to say bad things about the competition – that would not only be illegal, but also completely unethical. But what they can do and what they do is to change the way we think about the competition. So, for example, if the advertisement says 'Brand X – the choice for smart students' then the suggestion is that brand Y and brand Z are for students who aren't smart. They haven't said anything bad about Brands Y and Z, but they have made us have a lower opinion of them and a better opinion of Brand X – all without us realizing it, of course.

A third clever technique that companies use is to offer a choice so that people feel they are actually making a choice. One example of this is the so-called 'decoy effect'.
Some businesses use this marketing technique when they price products. Here's how it works. Imagine a watch company that has two pricing levels. It sells cheaper watches for about £100 pounds and expensive watches for about £400 pounds, and it regularly sells watches from each price band. If it uses the decoy effect, however, they will sell more £400 watches than £100 ones. So how does it work? The company offers three, not two

[13] Taken from: Listening (B1 Plus Unit 12 – test A, Task 1) (Unit tests)

price levels: £100 watches, £400 watches and a third level: £1,000 watches. The £400 watches now seem cheap in comparison with the £1,000 watches, so naturally consumers feel more comfortable about choosing them, as they feel they are saving money. And of course, the company will probably sell a few £1,000 watches, too!

▷ Listen to a short talk about advertising. Choose the correct answer (a, b or c) to complete the sentences.

1 The speaker believes language _____ influences our decisions when we have to make a choice.

a always ✓

b usually

c sometimes

2 The persuasive methods used by marketing companies are based on _____.

a business studies

b psychology ✓

c Information Technology studies

3 According to the speaker, consumers _____.

a are most interested in a product's features and functions

b only want to know how a product will improve their life

c want to know about the features and functions of a product and how it will change their life ✓

4 The speaker thinks the power of emotions is _____.

a dangerous

b amazing ✓

c funny

5 The speaker thinks it's _____ that companies aren't allowed to criticize each other's products and services in advertising.

a right ✓

b annoying

c surprising

6 The speaker talks about 'Brands X, Y and Z' to give an example of how a company might _____.

a break the law when advertising

b make consumers think badly of other companies ✓

c make consumers think their company is very clever

7 When companies use the 'decoy effect', they have _____.

a one pricing level

b two pricing levels

c more than two pricing levels ✓

8 The speaker thinks it _____ that the 'decoy effect' increases sales.

a is worrying

b is fascinating

c isn't surprising ✓

Appendix G Semi-Structured Interviews

G.1 Student Interview Protocol (Time 1)

1- Do you set goals and plan before you listen?
2- Can you briefly explain the process you follow when listening in L2?
3- How much are you aware of the role of strategies in listening?
4- Do you think you employ listening strategies effectively during listening activities?
5- Do you think employing listening strategies would enhance your self-confidence and motivation to listen in L2?
6- What do you do if someone says something in English and you have difficulty understanding what he or she is saying?
7- How do you deal with nervousness, anxiety or negative feelings that you may experience during your L2 listening process?

G.2 Student Interview Protocol (Time 2)

1- Before we started this course, and before I explained to you the different listening strategies and their roles is developing the listening skill. How much were you aware of the role of strategies in listening?
2- Do you think you employ listening strategies effectively during listening activities?
3- Do you think that strategy instruction would improve your listening performance?
4- Throughout this semester, you have been introduced to some listening strategies which we tried to implement together in our listening process. Were the strategies effective for you?
5- Do you think employing listening strategies would enhance your self-confidence and motivation to listen in L2?
6- Can you describe the experience of the transition from face-to-face to hybrid classes. Especially with learning listening comprehension?'
7- Would you prefer using the Hasawi lady video to raise awareness about strategy use and how to deploy listening strategies to understand different accents or would you prefer using a native's video (i.e., difference between American and Australian accents)? Would you prefer a video from the same culture (Saudi) or authentic materials?
8- Is there anything else you would like to add concerning listening and listening instruction? Any comments or feedback?

Appendix H Listening for Thought Groups

Listen to the recording and mark the pauses you hear with a slash (/). Figure 1.1 shows an example of this.

How long is an hour?

Directions: As you listen, mark a slash (/) where you hear pauses. (Hint: There are ten pauses).

First of all I will talk about how danger affects our sense of time

Next I will explain how your level of interest makes a huge difference

After that I will discuss time and children and how age changes our view

And finally a very important question what culture are you from?

Note: the listening excerpt is from the student's book.

Answer:

First of all / I will talk about how danger / affects our sense of time

Next / I will explain / how your level of interest / makes a huge difference

After that / I will discuss time / and children / and how age changes our view

And finally / a very important question / what culture are you from?

Appendix I

Appendix J Speech Segmentation Patterns

Directions: Listen to your teacher read the following sentences. Circle the item you hear.

1. What's your favourite food?
    a. I scream
    b. Ice cream
2. My friend is always ….
    a. at ease
    b. a tease
3. Where are you going to?
    a. That's cool
    b. That school

Note: All the vocabulary used are from the Student's book (level-B1).

Answers:

1. Ice cream

2. at ease

3. that school

Appendix K **Metacognitive and Cognitive Listening Comprehension Strategies**

Metacognitive strategies	
1 Planning	Developing an awareness of what needs to be done to accomplish a listening task, developing an appropriate action plan and/or appropriate contingency plans to overcome difficulties that may interfere with successful completion of the task.
1a Advance organization	Clarifying the objectives of an anticipated listening task and/or proposing strategies for handling it.
1b Directed attention	Deciding in advance to attend in general to the listening task and to ignore irrelevant distracters; maintaining attention while listening.
1c Selective attention	Deciding to attend to specific aspects of language input or situational details that assist in understanding and/or task completion.
1d Self-management	Understanding the conditions that help one successfully accomplish listening tasks and arranging for the presence of those conditions.

2 Monitoring	Checking, verifying, or correcting one's comprehension or performance in the course of a listening task
2a Comprehension monitoring	Checking, verifying, or correcting one's understanding at the local level.
2b Double-check monitoring	Checking, verifying, or correcting one's understanding across the task or during the second time through the oral text.
3 Evaluation	Checking the outcomes of one's listening comprehension against an internal measure of completeness and accuracy.
4 Problem identification	Explicitly identifying the central point needing resolution in a task or identifying an aspect of the task that hinders its successful completion.

Cognitive strategies	
1 Inferencing	Using information within the text or conversational context to guess the meanings of unfamiliar language items associated with a listening task, or to fill in missing information.
1a Linguistic inferencing	Using known words in an utterance to guess the meaning of unknown words.
1b Voice inferencing	Using tone of voice and/or paralinguistics

	to guess the meaning of unknown words in an utterance.
1c Extralinguistic inferencing	Using background sounds and relationships between speakers in an oral text, material in the response sheet, or concrete situational referents to guess the meaning of unknown words.
1d Between-parts inferencing	Using information beyond the local sentential level to guess at meaning.
2 Elaboration	Using prior knowledge fromoutside the text or conversational context and relating it to knowledge gained from the text or conversation in order to fill in missing information.
2a Personal elaboration	Referring to prior experience personally.
2b World elaboration	Using knowledge gained from experience in the world.
2c Academic elaboration	Using knowledge gained in academic situations.
2d Questioning elaboration	Using a combination of questions and world knowledge to brainstorm logical possibilities.
2e Creative elaboration	Making up a storyline or adopting a clever perspective.
3 Imagery	Using mental or actual pictures or visuals to represent information.
4 Summarization	Making a mental or written summary of language and information presented in a listening task.

5 Translation	Rendering ideas from one language in another in a relatively verbatim manner.
6 Transfer	Using knowledge of one language (e.g., cognates) to facilitate listening in another.
7 Repetition	Repeating a chunk of language (a word or phrase) in the course of performing a listening task.

Source: Vandergrift (1997).

Appendix L Listening Guid Sheet

Guide for Listening (adapted from Vandergrift & Goh, 2012)

A. Write down five main ideas (or key words) that you think will be mentioned in the text.

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

B. Discuss your predictions with a partner and then write down at least two more ideas (or words) that your partner included in her list of predictions.

6. _____ _____
7. _____ _____

C. Listen to the text. Place a check mark beside the ideas that you (A) and your partner (B) predicted and that were in fact mentioned in the text, and write down any other ideas that you had not predicted but were mentioned.

8. _____ _____
9. _____ _____
10. _____ _____

D. After verifying your predictions and discussing your listening results with your partner, listen to the text again to check your results and to resolve any discrepancies in comprehension between you and your partner. Add any further points and important details that you may not have understood during the first listen:

1. _____ _____
2. _____ _____
3. _____ _____
4. _____ _____
5. _____ _____

E. Listen to the text a third time to verify comprehension after a class discussion of the content of the text and a reading of the text transcript.

Reflection and Goal-Setting

I was successful in anticipating _____ ideas.

What surprised me:

What I will do next time:

Appendix M Listening Self-Evaluation

How often do you use the following ten important skills of effective listening? Check yourself carefully on each one. A score below 70 means you need to work on your listening. A score between 71 and 90 means you listen well. Over 90 means you are a great listener.

	Almost Always 10 PTS.	Usually 8 PTS.	Sometimes 6 PTS.	Seldom 4 PTS.	Never 2 PTS.
I can understand the main points of clear standard speech					
I can understand enough to follow complex topics while paying attention to details					
I can understand a speaker from intonation and pauses					
I draw mental outlines or images as I listen to capture important points					
I review mental outlines as I listen, so I don't forget important points					
I can recognize connected speech					
I can take careful notes as I listen					
I can guess the meaning of unknown words from the context					
I can predict before I listen					
I can set listening goals for myself					
Total =					

Appendix N **Stages of Instruction and Underlying Cognitive and Metacognitive Processes for Generic Listening Activities (Adapted from Vandergrift, 2004; Zeng & Goh, 2018; Zimmerman & Moylan, 2009)**

Pedagogical Stages	Processes	Aspects of Self-Regulation	Regulation Phases
Pre-listening Stage **Contextualization** The teacher starts by informing students about the topic and the type of the text (text genre): for example, an Interview with Network Designer. A class discussion on the topic is necessary to ensure that students grasp the basic knowledge and any cultural information to predict the content of the text. Teachers may need to pre-teach important vocabulary if the text has specialized and technical terminologies.	Metacognitive	**- Task analysis** Determined by understanding the nature and purpose of listening and the task type. **- Goal setting** Help students to set more demanding cognitive and metacognitive goals.	Forethought Phase
Planning/Predicting After informing student about the topic and text type, students need to predict the type of information (the gist or general content) and vocabulary they will hear (brainstorming activity). Students need to write down on their worksheets (See Appendix K) their initial predictions because they will serve as references when they	Metacognitive	**- Strategi planning** Help students decide on the cognitive/ metacognitive tactics.	

proceed to listen and verify their initial predictions. Students also need to plan ahead and develop awareness of what to be done to accomplish the listening task. For example, they can think of strategies to overcome certain difficulties in listening. **Advance Organization** The teacher needs to clarify the objectives of the anticipated listening task and propose strategies to approach them. This will help students to read the questions first, then decide on the appropriate strategy to complete the task. For example, students may choose to adopt Selective Attention after reading the listening questions (advance organization) to narrow down the information they need to focus on.	Metacognitive		
First Listen – First Verification Stage **Inferencing** Students need to use information from the conversational context to guess the meaning of unknown words. This will assist them with completing the listening task or fill-in missing information more strategically. **Monitoring and Evaluation**	Cognitive Metacognitive	**- Self-control** Selection and adaptation of task strategies; frequent use of metacognitive strategies and orchestrating strategies to construct meaning.	

Learners verify their initial predictions and note down additional information comprehended. **Monitoring, Cooperation, and Planning** Students compare their written notes with a partner, make required modifications, decide on the how to resolute and understand more important information through directed or selective attention.	Metacognitive Socio-Affective	**- Help seeking**	Performance Phase
Second Listen – Second Verification Stage **Mentoring, Evaluation, and Problem-Solving** At this stage, students need to verify and check for the misunderstood points and make required corrections. They can also write any additional details. **Monitoring, Evaluations, and Problem-Solving** Class discussion in which the whole class participate in the reconstruction of the main points and relevant details. Students can also share their strategies for understanding the meaning of certain words or linguistic items. For example, their use of double-check strategy to monitor required	Metacognitive Metacognitive	**- Self-observation** Metacognitive adaptation and monitoring.	

information or the use of linguistic cues to understand unfamiliar words.			
Third Listen – Final Verification Stage **Monitoring and Problem-Solving** Students listen specifically for the information problem-solving revealed in the class discussion which they were not able to make out earlier. This listen will be accompanied by the transcript of all or part of the text.	Metacognitive Cognitive		
Post-Listening Stage: Reflection and Goal-Sitting Stage **Evaluation and Planning** After checking the outcomes of listening comprehension, students need to evaluate their performance, strategy use, and judge their overall execution of the listening task. Based on the earlier discussion of strategies used to compensate for what was not understood, learners write goals for the next listening activity in the Listening Guide Sheet (See Appendix K).	Metacognitive	**- Self-judgment** Self-evaluation and causal attribution **- Self-reaction** Self-satisfaction/affect	Self-Reflection Phase

Appendix O Teaching Intervention

Outline of Teaching Intervention – weekly tasks/classroom activities

	Monday
Week #1 **(29/08 – 02/09)**	**New Student Orientation Week (O-Week)**
Week #2 **(05/08 – 09/09)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies - Understand 'metacognition' and 'self-efficacy' and their roles in listening outcomes - Have listening goal-setting conversations - Listen for stress to identify key words - Reflect & set goals for the next listening	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (Awareness Raising) (8:00 – 8: 25)** - Strat with an activity to raise students' awareness about strategies (e.g., play an audio in L1 with unknown words and try to guess the meaning from the context) **- Introduce L2 listening strategies and share the 'list of listening strategies'** **Modelling & Explaining 'Metacognition' and 'Self-Efficacy' (8:25 – 9:00)** - Modelling: the teacher will demonstrate the strategy use to the students by answering comprehension questions of a listening passage while verbalizing the listening comprehension process. - Explaining the term 'Metacognition' and how it's related to L2 listening. - Introduce listening strategies and explain their relationship to affective factors and listening outcomes (Why are we learning about the strategies?). The teacher has to be explicit about the purpose of these strategies to help students increase their self-efficacy and consequently their motivation. The concept of 'self-efficacy' will be explained to students in intermediate-level language. - Distribute the List of Listening Strategies and Guide for Listening **Listening Goal-setting Conversations (9:00 – 9:15)** - Start the lesson by having listening goal-setting conversations with Ss. Have Ss think about a listening difficulty they've been struggling with. And then start looking at, "OK, what could we do to fix that?" And so the teacher and Ss will set a goal around that and then that leads more into better listening achievement and progress. **Warm-up (9:15 – 9:20)**

	- Explain to students the aim behind this activity (task analysis and goal setting) - Introduce students to the new listening topic by activating their schemata / contextualization - Guide students through the pre-listening strategies: Planning/Predicting/Advance Organization - Refer students to the strategy list and explain to them other strategies they can deploy - Ask students to follow the Guide for Listening and write down their predictions before they listen. **Listen for Stress to Identify Key Words (9:20 – 9:50)** - Teacher will explain that the most important words in a talk are usually stressed and are easier to hear than other words. - 1st listen: students will listen and try to match their predictions with the listening through monitoring (self-observation), problem-solving and evaluation + peer work (they need to check their answers with a partner) - 2nd listen: Check for missing or incorrect info. Then share the answers in groups before sharing them with the whole class to construct meaning (group discussion) -3rd listen: students will again check their answers based on class discussion and will also read the transcript while listening (bottom-up process) **Reflection and Goal Setting (9:50 – 10:00)** - Students will evaluate their performance, strategy use, and judge their overall execution of the listening task. They will set goals for the next listening based on their self-evaluation. - The teacher will observe and evaluate students' performance during the listening stages. Feedback (verbal persuasion) will be provided especially to less skilled listeners.
Week #3 **(12/09 – 16/09)** **Lecture time:** **8:00 – 10:00 a.m.** **Learning Objectives:**	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 25)** - Introduce the lesson by asking students about the importance of listening strategies and how they would improve the listening process. - The teacher will give a basic review of one of the strategies at the beginning of each lesson to keep the know-how of strategies fresh in the minds of students

- Understand listening & self-regulated strategies - Set listening goals - Predict before listen - Engage in pair-work discussion to understand the meaning of the passage - Reflect & set goals for the next listening	- At this level, students are advised to implement one or more listening strategies at the same time during the next listening activity. - Ask students to use the List of Listening Strategies and distribute new Guide for Listening worksheets. - Help Ss set listening goals for themselves. The teacher can share Listening Goal-Setting worksheets and ask Ss to describe actionable steps to get to their goal. **Review & Modelling (8:25 – 8:40)** **-** Review last week's strategies to check students' understanding and to obtain feedback on student learning. - Modelling: the teacher will demonstrate the strategy use to the students by trying to predict the listening topic after looking at the pictures/titles/headings from the book and going over the questions. **Warm-up & Making Predictions (8:40 – 9:00)** **-** Explain to Ss the role of predictions in helping to construct meaning of the listening passage. - Teach Ss how to use information from the book (headings, titles or pictures) and use their own personal experiences to anticipate what they are about to listen to. **Pair-Work Discussion (9:00 – 9:25)** - Divide Ss into pairs and ask them to work with their partners to look at the picture and discuss the questions (Student's Book, p. 19). - Ask students to follow the Guide for Listening and write down their predictions before they listen. **The Listening Process (9:25 – 9:50)** - 1st listen: students will listen and try to match their predictions with the listening through monitoring (self-observation), problem-solving and evaluation + peer work (they need to check their answers with a partner) - 2nd listen: Check for missing or incorrect info. Then share the answers in groups before sharing them with the whole class to construct meaning (group discussion) -3rd listen: students will again check their answers based on class discussion and will also read the transcript while listening (bottom-up process) **Reflection and Goal Setting (9:50 – 10:00)**

	- Students will evaluate their performance, strategy use, and judge their overall execution of the listening task. They will set goals for the next listening based on their self-evaluation. - The teacher will observe and evaluate students' performance during the listening stages. Feedback (verbal persuasion) will be provided especially to less skilled listeners.
Week #4 **(19/09 – 23/09)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies - Listen for thought groups **- Recognize *-t* and *-d* + consonants** - Reflect & set goals for the next listening	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 15)** - Begin the lesson by asking Ss to share some of the listening difficulties they may have encountered during the last two weeks. - Choose one of the listening problems and ask Ss to work in pairs and encourage them to articulate their problem-solving process with each other. - Encourage Ss to share their different approaches to the listening problem with the whole class while working their listening problems out loud. **Listen for Thought Groups (8:15 – 8:30)** - Teach Ss how to listen to thought groups by identifying speech pauses. - Ss will do the exercise on the handout individually, then share their answers in a group discussion. - Teacher will monitor and evaluate then provide Ss with the correct answers and explain any confusions if occurred. **Recognize *-t* and *-d* + Consonants (8:30 – 9:00)** - The teacher will explain to Ss that when a word ends in *-t* or *-d* and the next word begins with a consonant, we don't pronounce the *t* or *d*. For example, 'Lif~~t~~ going up' sounds like 'Lif going up' or in one word 'frien~~d~~s' sounds like 'friens' - The teacher will read 2-3 examples out loud and will ask Ss to practice the predictable phonetic variants of the remaining examples. - Ss will complete the listening exercises on pages 38-39. **The Listening Process (9:00 – 9:45)** - Ss will be asked to listen to the passages from the Student's book following the same listening cycle from previous lectures (1st, 2nd and 3rd listening stages) and complete the exercises.

	Reflection and Goal Setting (9:45 – 10:00) - Students will evaluate their performance, strategy use, and judge their overall execution of the listening task. They will set goals for the next listening based on their self-evaluation. - The teacher will observe and evaluate students' performance during the listening stages. Feedback (verbal persuasion) will be provided especially to less skilled listeners.
Week #5 **(26/09 – 30/09)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies - Recognize extra sounds in connected speech - Take notes when listening - Reflect & set goals for the next listening	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 15)** - Begin the lesson by sharing with Ss some skilled L2 listeners' statements about their listening strategy use (statements can be derived from the piloting phase). For example, 'I use skimming and scanning before I listen'. What the participant meant in that statement is that she applied advance organization before the listening process; she read the questions first and highlighted the important key words, then directed her listening accordingly (directed/selective attention). - Ss can share their ideas of each statement; whether they agree or disagree and explain why. **Warm-up & Connected Speech (8:15 – 8:30)** - Explain to Ss that in English, unlike Arabic, words can link together in a continuous stream of sounds, without clear-cut borderlines. This stringing of words together results in connected speech. It also explains why written English is sometimes different from spoken English, which may sometimes cause many listening problems for Ss. - Ss should be introduced to different types of connected speech (e.g., assimilation, intrusion, catenation, and elision). **Recognizing Extra Sounds in Connected Speech (8:30 – 9:00)** - The teacher will explain to Ss that when two vowel sounds meet, an extra sound is inserted which resembles either /w/ or /j/, to mark the transition sound between the two vowels. This process is called 'intrusion'. - Teacher will give examples from the Student's book (e.g., for /w/: d**o a** master's degree, for /j/: tr**y o**ut a new hobby). - The teacher will model and drill the phrase as it is said naturally. For example, 'go on' sounds like 'gowon' and 'I agree' sounds like 'aiyagree'. - Ss will practice saying these phonetic variants. If they struggle with long phrases, the teacher can use back-chaining; which starts with the last sound or phrase and working towards the whole sound

	slowly. For example, for the phrase 'want to add to your life', you drill 'toyourlife' then 'towadd-toyourlife' 'wantowadd-toyourlife'. More phrases can be drilled from Student's book (p. 52). - Ss will complete the related listening exercises on page 52. **Taking Notes when Listening (9:00 – 9:30)** - Ss will be taught how to take notes when listening by completing the taking notes exercise on page (56). Ss have to listen to the introduction of a presentation and choose the correct option in the notes. Then, they have to listen for the main part of the presentation and underlie the mistakes in the notes. - Ss will be asked to listen to the passages from the Student's book (p. 57) and follow the same listening cycle from previous lectures (1st, 2nd and 3rd listening stages) and complete the exercises. **Reflection and Goal Setting (9:45 – 10:00)** - Students will evaluate their performance, strategy use, and judge their overall execution of the listening task. They will set goals for the next listening based on their self-evaluation. - The teacher will observe and evaluate students' performance during the listening stages. Feedback (verbal persuasion) will be provided especially to less skilled listeners.
Week #6 **(03/10 – 07/10)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies - Understand words around key words **- Reflect & set goals for the next listening**	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 15)** - The teacher will raise Ss awareness of the role of 'inferencing' in listening comprehension. Inferencing is a listening strategy through which Ss can guess the meaning of the passage by analysing textual and contextual information or through activating prior knowledge to compensate for missing information. However, the teacher needs to explain to Ss that inferencing relies upon several factors to be effective. For example, if the student is unfamiliar with a specific accent, s/he may make wrong inferences, which can have a negative impact on understanding for L2 listeners. - The teacher can share her own experience as an L2 listener by telling how she made wrong inferences due to unfamiliar accent when she misheard the phrase 'Sunday dinner' for 'Sunny Dillon'. The accent of this phrase was a Southern Atlanta/Georgia accent. In the syllable codas of that African-American Vernacular English (AAVE) regional dialect, the deletion of word-internal alveolar stops /d/ and /t/ results from cluster simplification to achieve gestural economy (this is why 'Sunday' sounds like 'sunny'). Another feature is the deletion of /r/ after vowels. In AAVE, /r/ is sometimes deleted at the end of a word if preceded by a vowel (this explains why 'dinner' sounds like 'dillon' and 'beer' sounds like 'biyuh'). **Warm-up & Understand Words around Key Words (8:15 – 8:30)**

- Track listening strategic plan	- Since vocabulary knowledge and the familiarity of the topic are essential components of inferencing strategy (Pulido, 2007), the teacher will start the activity by introducing the new vocabulary followed by asking questions related to the new listening topic (lecture about possessions and how we develop ideas about them). - Next, Ss will work on the activity on page (64), which guides them to listen carefully for key words in longer chunks. **The Listening Process (8:30 – 9:30)** - Ss will be asked to listen to the passages from the Student's book (p. 63-64) following the same listening cycle from previous lectures (1st, 2nd and 3rd listening stages) and complete the exercises. **Reflection and Goal Setting (9:30 – 9:45)** - Students will evaluate their performance, strategy use, and judge their overall execution of the listening task. They will set goals for the next listening based on their self-evaluation. - The teacher will observe and evaluate students' performance during the listening stages. Feedback (verbal persuasion) will be provided especially to less skilled listeners. **Track Ss' Listening Strategic Plan (Group Activity) (9:45 – 10:00)** - Students will be asked to participate in a 'Track your Listening Strategic Plan' activity. In this activity, the teacher will share a Google spreadsheet with the students, which contains their ID#s and strategies names. The teacher will ask them to tick the strategies they've been frequently using throughout the week and to add any additional comments they would like to share. **Link:** Listening Strategies Spreadsheet
Week #7 **(10/10 – 14/10)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 30)** - The lesson will start with a comprehensive group activity to aid open discussion around different learning and revision listening strategies. Through brainstorming different listening strategies and techniques to listen, students will be able to understand a variety of different listening strategies and which strategies are best for them to deploy while listening and be confident in using them. - Students are encouraged to share the difficulties they faced while deploying these strategies and discuss this with their peers and try to find out ways to overcome these difficulties. - The teacher will lead and monitor this discussion and give students more insights into how to effectively use listening strategies as well as how to activate metacognitive awareness.

- Recognize linkers in fast speech **- Reflect & set goals for the next listening**	**Recognize Linkers in Fast Speech (8:30 – 9:00)** - The teacher will explain to Ss that when we speak quickly, we sometimes don't pronounce parts of words. This is especially true with very common words, like linkers, and, but, because, so and for example (e.g., 'but' sounds like 'bt', 'because' sounds like 'cos', 'for example' sounds like 'frexample', 'and' sounds like 'n', 'so' sounds like 's'). Have Ss complete the exercise on page 78. **The Listening Process (9:00 – 9:45)** - Ss will be asked to listen to the passages from the Student's book (p. 78-79) following the same listening cycle from previous lectures (1st, 2nd and 3rd listening stages) and complete the exercises. **Reflection and Goal Setting (9:45 – 10:00)** - Students will evaluate their performance, strategy use, and judge their overall execution of the listening task. They will set goals for the next listening based on their self-evaluation. - The teacher will observe and evaluate students' performance during the listening stages. Feedback (verbal persuasion) will be provided especially to less skilled listeners.
Week #8 **(17/10 – 21/10)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies - Understand weak forms - Understand speech segmentation patterns **- Reflect & set goals for the next listening**	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 30)** - The lesson will start with a comprehensive group activity to aid open discussion around different learning and revision listening strategies. The teacher will begin by playing a recording from the new lesson and ask Ss to try and answer the comprehension questions. Then, the teacher will ask Ss to think about their thinking by asking 'Describe how you arrived at your answer' 'Think-aloud' - Then, survey the class by asking 'How many people agree with deploying listening strategies? Which strategies are more effective than others?' - The teacher will lead and monitor this discussion and give students more insights into how to effectively use listening strategies as well as how to activate metacognitive awareness. **Understand Weak Forms (8:30 – 9:00)** - The teacher will explain that speakers often don't pronounce small words very clearly when they speak quickly. The teacher will give few examples to Ss and will ask them to guess and identify weak forms: ('**I'm** in the conference', 'Now, **they've** become …'). The teacher will explain that weak forms are used with words like *am*, *is* and *are*. - Ss will complete the weak forms exercise on page 92.

	Understand Speech Segmentation Patterns (9:00 – 9:25) - The teacher will pronounce two utterances to Ss and will ask them to tell the difference: ('that school' and 'that's cool!') - The teacher will then explain the concept of segmentation (the dividing up of utterances into individual words and syllables). This can be confusing to many non-native Ss and the teacher has to use the written forms of words and the spoken forms together (e.g., 'a tax on city buses' sound like 'attacks on city buses'. - Ss will complete the exercise on the handout by listening to the teacher reading the sentences out loud and choose the correct answer. **The Listening Process (9:25 – 9:50)** - Ss will be asked to listen to the passages from the Student's book (p. 91-92) following the same listening cycle from previous lectures (1st, 2nd and 3rd listening stages) and complete the exercises. **Reflection and Goal Setting (9:50 – 10:00)**
Week #9 **(24/10 – 28/10)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies - Understand a speaker from intonation and pauses - Recognize connected speech **- Reflect & set goals for the next listening**	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 30)** - The teacher will utilize 'think-pair-share' to elicit answers on strategy use and goal-setting for listening development. The teacher will give 2 mins of think time, 2 mins discussion with a partner and then open up the class to discussion. - The teacher will ask 'follow-ups' questions related to listening strategies and goal-setting (e.g., 'Why? Do you agree? Can you elaborate? Tell me more. Can you give an example?'). - Develop a creative introduction to the topic to stimulate interest and encourage thinking. The teacher can use a variety of approaches to engage students (e.g., personal anecdote, historical event, thought-provoking dilemma, real-world example, short video clip, practical application, probing question, etc.). **Understand a Speaker from Intonation and Pauses (8:30 – 9:00)** - The teacher should make it clear to Ss that listening for intonation and pauses can help understand the speakers. - The teacher will read two sentences out loud and will ask Ss to guess which sentence indicates that the speaker has more to say and which one indicates that the speaker has finished talking.

	- The teacher explains the correct positions of pauses (at the end of sentences and when the speaker changes topic). -Ss will complete the exercise on page 103. **Recognize Connected Speech (9:00 – 9:30)** - The teacher will read out loud few phrases and will ask Ss to identify connected speech in them (e.g., 'went out' sounds like 'wentout', 'hard exam' sounds like 'hardexam', 'let's leave' sounds like 'letsleave'). - The teacher will explain that when a word ends in a consonant and the next word starts with a vowel sound, we usually link the words together when we say them, so they sound like one word. **The Listening Process (9:30 – 9:50)** - Ss will be asked to listen to the passages from the Student's book (p. 106) following the same listening cycle from previous lectures (1st, 2nd and 3rd listening stages) and complete the exercises. **Reflection and Goal Setting (9:50 – 10:00)**
Week #10 **(31/10 – 04/11)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies - Use meaning and grammar to understand a speaker - Recognize sequencers **- Reflect & set goals for the next listening**	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 15)** - Reflect on Ss goal-setting activities from weeks (2 & 3). **Use Meaning and Grammar to Understand a Speaker (8:15 – 8:30)** - The teacher has to inform Ss that good listeners use meaning and grammar to help when it is difficult to understand someone. Examples and exercises will be covered on pages (118-119). **Recognize Sequencers (8:30 – 9:00)** **-** Introduce the sequencers in spoken English. These are: firstly, secondly, next, then, after that and finally. Explain their roles in introducing the next step in a process or story. Listening to sequencers can help in understanding the steps. - Complete the exercise on page 120. **The Listening Process (9:00 – 9:45)**

	- Ss will be asked to listen to the passages from the Student's book (p. 120-121) following the same listening cycle from previous lectures (1st, 2nd and 3rd listening stages) and complete the exercises. **Reflection and Goal Setting (9:45 – 10:00)**
Week #11 **(07/11 – 11/11)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies - Understand the main point - Recognize numbers and statistics **- Reflect & set goals for the next listening** - Track listening strategic plan	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 15)** - The teacher will start the lesson by reviewing some strategies for listening and will share with Ss (Strategies for Listening during Exams) **Understand the Main Point (8-15 – 9:10)** - Understanding the gist is crucial to understand the overall ideas of a passage as a whole. It should be made clear to Ss that the main goal of listening is to understand the main idea and not worry too much about the details. - The teacher will guide Ss to listen to: (a) key and repeated words, (b) reasons and examples, (c) changes of topic. - Share examples of questions about the gist of a passage (e.g., 'What is the subject of a passage?', 'What is the topic of the passage?', 'What is the main idea of the passage?', What is the purpose of the passage?') - Explain to Ss that information to help you understand the gist may be directly stated at the beginning of the passage. However, it may also be necessary to draw a conclusion about the gist based upon information provided throughout the passage. - Tips for understanding the gist: (a) listen carefully for the beginning of passage to develop an initial idea, (b) then, as you listen to the rest of the passage, adjust your idea of the gist as you consider what the speakers are saying. - Complete the listening exercises on (p. 131 to 133). **Recognize Numbers and Statistics (9:10 – 9:30)** - The teacher will teach Ss how to listen for key words related to numbers and statistics (e.g., per cent, kilometres, pounds, tonnes, 2018, etc). - Ss will do the listening exercise on page (135) by reading the sentences first and deciding what kind of statistic is missing from each one (e.g., a distance, a weight, an amount of money, a percentage, a year or a quantity).

	Reflection and Goal Setting (9:30 – 9:45) **Track Ss' Listening Strategic Plan (Group Activity) (9:45 – 10:00)** - Students will be asked to participate in a 'Track your Listening Strategic Plan' activity. In this activity, the teacher will share a Google spreadsheet with the students, which contains their ID#s and strategies names. The teacher will ask them to tick the strategies they've been frequently using throughout the week and to add any additional comments they would like to share. **Link:** Listening Strategies Spreadsheet
Week #12 **(14/11 – 18/11)** **Lecture time:** **8:00 – 10:00 a.m.** ---------- **Learning Objectives:** - Understand listening & self-regulated strategies - Understand a radio programme about ideas - Recognize frequent expressions **- Reflect & set goals for the next listening**	**Listening Intervention** **Whole Group Strategy Lesson:** **Warm-up (8:00 – 8: 15)** - Explain to students the aim behind this activity: task analysis and goal setting - Introduce students to the new listening topic by activating their schemata / contextualization - Guide students through the pre-listening strategies: Planning/Predicting/Advance Organization **Understand a Radio Programme about Ideas (8:15 – 9:00)** - Ask Ss to listen to a radio programme where people present an idea which could improve the world and complete the notes on page (143). - After eliciting some answers, ask Ss to share the listening process and verbalize how did they get the right answers. - Ask Ss to evaluate their strategy use during listening and what would they do to further improve their next listening performance. **Recognize Frequent Expressions (9:00 – 9:45)** - Explain to Ss that recognizing frequent expressions will help them understand other speakers more easily; using these expressions can also develop their fluency. - Frequent expressions are usually said as a single unit, and some sounds change or disappear at the end and start of words (e.g., 'I don't know' sounds like 'I dunno', 'I want to' sounds like 'I wanna', 'have got to' sounds like 'gotta', 'should have' sounds like 'shoulda'). **Reflection and Goal Setting (9:45 – 10:00)**

Week #13 **(21/11 – 25/11)** **Lecture time:** **8:00 – 10:00 a.m.** --- **Learning Objectives:** - Understand listening & self-regulated strategies - Understand a podcast about the global workplace **- Reflect & self-evaluate** - Track listening strategic plan	**Listening Intervention** **Whole Group Strategy Lesson:** **Introduction (8:00 – 8: 30)** - The lesson will start with a comprehensive group activity to aid open discussion around different learning and revision listening strategies. - The teacher will guide Ss to reviews and recap the key learning points in listening throughout the weeks (e.g., the role of self-regulated strategies, listening strategies, setting-goals, self-efficacy and metacognition in L2 listening). - Moreover, the teacher will review important listening skills. Such as understanding the gist, details, the function, the speaker's stance, the organization and relationships of the listening passage. - Ss are encouraged to discuss their strategy use and the difficulties they may have encountered. They are also encouraged to share their listening strategies during the Mid-term exam and how they benefit from deploying listening strategies. - The teacher will lead and monitor this discussion and give students more insights into how to effectively use listening strategies as well as how to activate metacognitive awareness. **Understand a Podcast about the Global Workplace (8:30 – 9:15)** - Set the context for the listening topic by asking Ss to look at the two pictures of workplaces and tell the difference (discuss answers with a partner). - Ask them to make predictions in relation to workplace (e.g., what skills are needed in a workplace, what are the challenges and advantages of a global workplace? etc). - Scaffold and provide feedback when needed. - Ss will listen to the podcast and complete the exercises on page 155. - After listening, Ss will check their predictions and will take notes while listening to help them with answering the listening comprehension questions. - Ss will share their answers with partners and have a small discussion before sharing their answers with the whole group. **Reflection and Self-Evaluate (9:15 – 9:45)** - Ss will be asked to self-evaluate their listening development and to reflect on their strategy use and goal-setting by filling out the Listening Self-Evaluation sheet (see Appendix M)

	Track Ss' Listening Strategic Plan (Group Activity) (9:45 – 10:00) - Students will be asked to participate in a 'Track your Listening Strategic Plan' activity. In this activity, the teacher will share a Google spreadsheet with the students, which contains their ID#s and strategies names. The teacher will ask them to tick the strategies they've been frequently using throughout the week and to add any additional comments they would like to share. **Link:** Listening Strategies Spreadsheet

Appendix P Summary of the Data Analysis Process in the Study

Research Question	Data Sources	Variables	Analysis Procedure	Purposes of Analysis
Quantitative Component of Study				
1. To what extent do listening strategy-based instruction and feedback on listening strategy use affect self-efficacy for L2 listening, use of self-regulation strategies, L2 listening motivation, and L2 listening outcomes over the treatment period?	**- Pre-test and Post-test Online Questionnaires** (Type of questionnaire items: rating scales – Likert scales) **Questionnaire 1: The English Listening Self-Efficacy and Motivation Scale & Demographic Information (ELSMS)** **<u>Section 1:</u> The English Listening Self-Efficacy Scale**	***Independent:*** - L2 Listening Strategy Instruction - feedback on strategy use ***Dependent:*** - L2 listening self-efficacy - L2 listening motivation - L2 listening self-regulation (consists of L2 listening self-regulatory strategies and L2	**Descriptive and Reliability Statistics** **One-Way ANOVA**	To examine the mean, variance, standard deviation, skewness, and kurtosis of the data. The reliability of the quantitative instruments will be measured using Cronbach's alpha. To examine whether there are any pre-existing differences between the control and experimental groups, a one-way analysis of variance (ANOVA) will be conducted. ANOVAs, a statistical technique, can be utilized to

	[The English Listening Self-Efficacy Scale – 6 items. **<u>Section 2:</u> Source of Self-efficacy Information Scale** Source of Self-Efficacy Information Scale – 13 items. **<u>Section 3:</u> The English Listening Comprehension Motivation Scale** The English Listening Comprehension Motivation Scale – 7 items. **<u>Section 4:</u> Demographic Information** Consists of 11 items with different types of closed-ended questions: dichotomous	listening metacognitive awareness) - L2 listening outcomes ***Extraneous:*** - Linguistic Knowledge - L2 prior attainment - Age - percentage of time listening to L2 - Length of learning L2 (or length of L2 exposure) - Having a foreign country experience - Use of L2 at home	**Repeated Measures ANOVA**	compare the variations among two or more groups over different time intervals (Pallant, 2020). The aim is to evaluate the impact of the intervention on each of the dependent variables. To achieve this, the statistical method of repeated measures ANOVA will be employed. This method involves testing the same group on multiple occasions to compare the means (Pallant, 2020). The analysis will be performed with between-subject variables, i.e., groups, and within-subject variables, i.e., occasions.

	– 7 items, multiple-choice – 1 item, rating scale – 1 item, questions with open number (e.g., number of years spent in learning English) – 2 items. **Questionnaire 2: The Metacognitive Awareness Listening & Self-Regulated Listening Strategy Questionnaire** [Data related to the use of self-regulation strategies was collected through two questionnaires: ***a) Self-Regulated Listening Strategy Questionnaire – 12 items:*** Self-Regulatory Behaviours in Listening – 4 items, Meta-Affective Listening Strategies – 3 items, Meta-Sociocultural		**Regression Analysis**	Collecting demographic information helps to cross-tabulate and compare data to see how responses vary between respondents. The analysis of the demographic information is divided into two sections: **a- Analysis of Moderating Variable** To investigate the impact of the moderator variable (English language proficiency) on the correlation between the dependent variables (self-efficacy, self-regulation, metacognitive awareness, motivation, and listening outcomes) and the

	Interactive Strategies – 3 items, and Seeking Social Assistance Strategies – 2 items. ***b) The Metacognitive Awareness Listening Questionnaire – 21 items:*** to measure metacognitive – 10 items, cognitive – 8 items, and socio-affective strategies – 3 items.		**Comparison of Means**	independent variable (the intervention). Both mid-term and final exam scores, which test students' linguistic knowledge in Grammar, Vocabulary and Reading, will be collected and analysed for both groups. **b- Analysis of Extraneous/Participant Variables** A comparison of the means of each extraneous/participant variable between the two groups will be conducted to compare: - Age - Participant confidence in English listening proficiency

				- Percentage of outside-classroom participation - Length of learning English - Travelling or living in English-speaking countries for more than 3 months - Educational level when started to learn English
	- L2 Listening Outcomes [Online English Listening Comprehension Test: Short Listening Comprehension – 5 questions, and Long Listening Comprehension – 7 questions.			The mean difference between the listening test scores will be measured by one-way ANOVA. A composite score of students' listening proficiency will be used in the analysis.
2. What are the relationships between	**Questionnaire 1: The English Listening Self-Efficacy and Motivation Scale**		**Spearman Correlation Coefficient**	Multiple correlation measures to explore the degree of

self-efficacy for L2 listening, self-regulation and L2 listening motivation at all test times?	**+** **Questionnaire 2: The Metacognitive Awareness Listening & Self-Regulated Listening Strategy Questionnaire**			association between three or more variables simultaneously. However, correlation does not imply causality.
3. Which, if any, of the variables (self-regulation, L2 motivation, metacognitive awareness) predicts L2 self-efficacy for L2 listening?	**Questionnaire 1: The English Listening Self-Efficacy and Motivation Scale** **+** **Questionnaire 2: The Metacognitive Awareness Listening & Self-Regulated Listening Strategy Questionnaire**	***Independent:*** - L2 listening motivation - L2 listening self-regulation - Metacognitive Awareness ***Dependent:*** - L2 listening self-efficacy for listening	**Stepwise Regression Analysis**	Multiple regression techniques will be used to establish relative weightings of variables on the dependent variable (L2 listening self-efficacy). It allows to determine which of the independent variables (self-regulation, metacognitive awareness, and motivation) has a statistically significant effect on the dependent variable (self-efficacy). Care will be taken to avoid collinearity

				so that, if variables are found to have a correlation coefficient of higher than .80, these will be collapsed or eliminated from the analysis (Cohen, Manion & Morrison, 2009).
Research Question	**Data Sources**	**Analysis Procedure**	**Purposes of Analysis**	
Qualitative Component of Study				
1. To what extent do listening strategy-based instruction and feedback on listening strategy use affect self-efficacy for L2 listening, use of self-regulation strategies, L2 learning motivation, and L2 listening outcomes over the	Same as data sources for RQ1 mentioned in the Quantitative Component of Study	**The Frequency Counts of Individual Strategies** **Wilcoxon Signed-Rank Test**	Following the coding process described in Section 4.2.2.1, the final listening strategies of each individual were computed for the purpose of conducting pairwise comparisons through statistical analysis. The objective of this analysis is to utilize both qualitative and quantitative data to investigate the impact of the study's intervention on the use of strategies in greater detail. To compare pre-post individual strategies for the experimental group. Wilcoxon signed-rank test is used to measure the	

treatment period?		**Qualitative Content Analysis**	differences in the distribution of two 'related samples' on a rating scale (Cohen et al., 2018, p. 795). Running a content analysis will serve to gain more reflections on strategy development and strategy use. These reflections have to be derived from the literature of this study. Data will be labelled and qualitatively tabulated (to present data visually and allow comparison of frequencies in the categories). **Classroom data collection (documents)** will show which strategies did the students deploy and how they were used and how students differed in their ability to deploy listening strategies, their metacognitive knowledge, and their ability to metacognitively self-regulate their listening (e.g., to monitor their comprehension and to orchestrate strategies to solve listening problems).
4. What self-regulatory behaviours did the learners employ during the L2 listening strategy-based	**- Teacher's diary** **- Documents (in-class listening worksheets and handouts, e.g., Guide for Listening handout and Listening Self-**	**Qualitative Content Analysis**	Data will be analysed according to a general inductive/deductive framework to help identify themes and patterns that are relevant to research objectives and aims. **Analysis process:**

instruction?	**Evaluation form, collected worksheets from pair-work listening activities)**		1- Data organization: after reading the transcripts, data will be coded and organized into emerging categories 2- Identifying themes/findings 3- Interpretation (making meaning of the data)
4a. How did the students perceive the listening strategies instructed in hybrid learning: their strategy use, and their preferences in terms of L2 listening instruction?	**Semi-structured interviews**	**Thomas' (2006) General Inductive Approach for Analysing Qualitative Data**	To identify themes that pertain to how students perceive the instructed listening strategies in hybrid learning, how well they comprehend and utilize these strategies, and their preferences regarding L2 listening instruction.

Appendix Q Main Variables

Variable 1					Variable 2	Variable 3								
L2 Listening Self-Efficacy					L2 Listening Motivation	Self-Regulation								
Source of Self Efficacy Information						L2 listening self-regulatory strategies				L2 listening metacognitive awareness				
Strategic Awareness	Performance Outcomes	Physiological State	Verbal Persuasion	Vicarious Experience		Self-regulatory behaviours in listening	Meta-Affective Listening Strategies	Meta-Sociocultural-Interactive Strategies	Seeking Social Assistance Strategies	Planning and Evaluation	Directed Attention	Person Knowledge	Mental Translation	Problem-Solving

Appendix R Constructs and Sub Constructs Description

Construct	Sub Construct	To measure …	Survey	Number of Items
Self-Efficacy	Self-Efficacy for L2 Listening	How sure students are that they could perform each of the L2 listening tasks	**English Listening Self-Efficacy Scale**	**Total: 6**
Self-Efficacy	Source of Self-Efficacy Information:		**Source of Self-efficacy Information Scale**	**Total: 13**
	1- Performance Outcomes	L2 listening performance compared with previous listening performance (before and after the treatment)		2
	2- Vicarious Experience	The student's self-confidence in listening in L2 compared with other students		1
	3- Verbal Persuasion	What other classmates and family members think about the respondent's listening performance in L2		2

	4- Physiological State	Positive (enjoyment, comfort) and negative (nervousness) emotions while listening		4
	5- Strategic Awareness	Some listening strategies, such as, planning, strategy use, guessing and concentration		4
Self-Regulation Strategies			**Self-Regulated Listening Strategy Questionnaire**	**Total: 12**
	1- Regulatory Behaviours in Listening	The ability to set listening goals, orchestrating several listening strategies, understanding the nature and purpose of the listening, and making links between questions and what they hear.		4
	2- Meta-Affective Listening Strategies	Affective awareness and the ability to control negative emotions while listening		3
	3- Meta-Sociocultural Interactive Strategies	Learners' attitude towards L2 cultures and how this relates to improving listening skill		3
	4- Seeking Social Assistance Strategies	Seeking help from the teacher and classmates when facing listening difficulties		2
				Total: 21

Self-Regulation Strategies	1- Metacognitive Strategies	Planning, advance organization, contextualization, directed/selective attention, monitoring, problem-solving, self-management, and self-evaluation	**The Metacognitive Awareness Listening Questionnaire**	10
	2- Cognitive Strategies	Mental translation, linguistic/extralinguistic inferencing, elaboration		8
	3- Socio-affective Strategies	Self-awareness (controlling one's emotions), how they perceive learning L2 listening		3
Listening Motivation		Attitudes, conceptualizations, and preferred situations to learn English listening comprehension	**The English Listening Comprehension Motivation Scale**	7
Total number of questionnaire items:				**59**

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