Expertise in L2 Listening: Metacognitive Instruction and Deliberate Practice in a Saudi University Context

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Submitted in accordance with the requirements for the degree of

Doctor of Philosophy

The University of Leeds

School of Education

July 2013

Dedication

To the most precious ones in my life, my parents, husband and two sons..

I dedicate this work..

Acknowledgments

First and foremost, all Praise is due to God the Almighty for the uncountable blessings He has bestowed on me, all of which made accomplishing this task a dream come true.

I would like to express my sincere appreciation to my supervisors, Dr Richard Badger and Dr Martin Lamb, for their invaluable advice, guidance and constructive criticism. I am grateful for the encouragement and continuous support they offered me. I would also like to thank my examiners, Professor Suzanne Graham and Professor Alice Deignan for accepting to act as examiners and provide further support to my research.

I would like to extend my thanks to my sponsors, the College of Languages and Translation, King Saud University, who have facilitated the undertaking of this research. I would like to especially thank Dr. Shadia Shiekh, Vice Dean of COLT, Mrs. Hoda Al-Helaissi, Vice Chairperson-English Department at the time, and Mrs. Sarah Al-Shubaily for endless help in so many tasks. I would also like to offer my thanks to those who helped me with statistics; I mention particularly Dr Matt Homer and Dr Farag Shuweidhi. I also extend my sincere thanks to my colleagues in the workstation for always being there to offer support and advice.

To my beloved parents, for all the love, support, and prayers they have blessed me with. Thanks for always believing in me. To my sisters and brothers for their support, encouragement and prayers, I am so grateful to you all.

Last but not least, my deepest gratitude goes to my husband Bandar Alsaadoun who lived the ups and downs of this journey with me and was there to offer me support and encouragement. No words can express my thanks to you. And to my lovely sons, Fahad and Faisal who had to put up with the long hours I had to be away from them to accomplish this work. God Bless you all!

Abstract

The significant role listening plays in SLA is now well-established. However, despite changes in the perception of L2 listening, it remains an under-researched skill. Listening is the most challenging of the four language skills in terms of both learning and teaching. This calls for more research to tackle issues with the teaching and learning of L2 listening.

I conducted a two-phase, quasi-experimental study that integrated metacognitive instruction and deliberate practice into EFL listening sessions. Phase One focused on metacognitive instruction, whereas Phase Two was on deliberate practice. Participants were 42 female, tertiary level students at COLT at King Saud University in Riyadh, Saudi Arabia. Students were enrolled on a Listening 4 course. The experimental group ($n = 21$) took part in both phases of the study, unlike the comparison group ($n = 21$) who were only used as a comparison group to evaluate the effectiveness of the intervention. The impact of the two phases on EFL listening was measured through a TOEFL listening test, whereas changes in metacognitive knowledge were tracked using the Metacognitive Awareness Listening Questionnaire (MALQ). I also used guided listening diaries with the experimental group throughout the study to uncover their metacognitive knowledge and promote self-reflection.

The two phases led to an increase in the listening ability and metacognitive knowledge of the experimental group, although to varying degrees. The diaries of the experimental group revealed a level of metacognitive knowledge, particularly task and strategy knowledge. The experimental group also outperformed the comparison group on the final MALQ and TOEFL test. Results of this study suggest the usefulness of both metacognitive instruction and deliberate practice for the development of EFL listening. Thus, the study proposes a new deliberate practice approach to L2 listening, in which metacognitive instruction is an essential element, but not an end in itself. This study is just one step on the journey towards the effective application of deliberate practice in the L2 classroom.

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List of Abbreviations

CG: Comparison group

CLT: communicative language teaching

COLT: College of Languages & Translation

DP: deliberate practice

EFL: English as a foreign language

EG: experimental group

ELT: English language teaching

ESL: English as a second language

GAT: general aptitude test

IU: idea units

KSA: Kingdom of Saudi Arabia

KSU: King Saud University

L1: first language (in this case Arabic)

L2: second language

MCQs: multiple choice questions

MI: metacognitive instruction

MOE: Ministry of Education

MOHE: Ministry of Higher Education

MS: metacognitive strategies

PK: person knowledge

SK: strategy knowledge

SLA: second language acquisition

TK: task knowledge

Chapter 1 Background to the Study

1.1   Introduction

The purpose of this introductory chapter is to establish the theoretical and contextual background for the study. I will first begin with highlighting the status of second/foreign language (henceforth L2) listening and the role it plays in language learning. The second part describes the context of the study, the Kingdom of Saudi Arabia (KSA), with particular emphasis on the status of teaching listening in the Saudi context both at secondary and tertiary levels. The chapter is concluded by the rationale of the study based on the context, and then a summary and thesis outline.

1.2   Scope of the Study

The image as well as approach of L2 listening instruction are changing (Vandergrift, 2004). Once labelled the Cinderella of language skills (Nunan, 2002), the primacy of listening in L2 learning is now well-established (Field, 2002, Morley, 2001, Vandergrift, 2007). The status of listening comprehension in language learning and teaching was "one of neglect" up to the end of the 1960s (Lynch, 2006). This consequently had a negative effect on the way listening was viewed and the role it played in language learning. The common assumption was that both language learners and teachers "know how" to listen in their native language and, hence, L2 listening will "develop on its own" (Feyten, 1991, p. 175).

It was only during the time of communicative language teaching (CLT) that listening finally gained its "rightful place" in the language classroom (Vandergrift and Goh, 2009). It was by then that applied linguists started to realize the significant role listening plays in facilitating access to the L2, and that it was listening, rather than any of the other language skills, which served as the trigger for language acquisition (Rost, 2001). Previously viewed as a passive skill, listening nowadays is seen as an active and highly integrative skill; a skill through which the rules of a language are internalized and other language skills emerge (Vandergrift, 1997a).

Listening is now viewed as a vehicle for learning (Cook, 2001). There has also been a shift in the approach taken to listening comprehension; it used to be viewed as a form of reception, which implied the mechanical role the listener plays to arrive at the message. However, now listening has come to be seen as interpretation, which signals the active role a listener plays in the listening process (Lynch, 2009). Yet listening remains a language skill difficult for learners to improve, for teachers to assess, and for researchers to investigate (Chang and Read, 2006, Vandergrift, 2010). Evidence indicates that listening is the skill language learners feel the least comfortable with (Graham, 2006b), and that it is the one they find most difficult to learn (Vandergrift, 2004). A number of features distinguish listening from other language skills and might be the reason why L2 learners find it the most difficult of language skills. The most salient of these features is the transient nature of listening (Buck, 2001, Lynch, 2002), which entails absence of the recursive nature found in reading (Field, 2008a).

Although developing L2 listening is crucial, a listening lesson seldom teaches language learners how to listen effectively (Vandergrift, 2007). The comprehension-approach (see Section 2.5.1), which is the norm in most listening classes, tests rather than teaches L2 listening (Field, 2008b). L2 listening classes tend to focus on the product, rather than the process of listening, which is a form of testing rather than actually teaching learners how to go about a listening text (Mendelsohn, 2006). Recently, the interest of listening instruction has been directed towards raising the learners' awareness of the process of listening (Vandergrift, 2004). This study is an attempt in the same direction. Yet before presenting the rationale of the study, I will first shed light on the context which first inspired me to undertake this research and in which the intervention was later carried out.

1.3 Contextual Background to the Study

The study in hand was conducted in the Kingdom of Saudi Arabia (KSA), specifically in the capital, Riyadh. The participants were all female, undergraduate students at the College of Languages and Translation (henceforth COLT), in the English Department at King Saud University (KSU), one of the Kingdom's oldest

and most prestigious government universities. First of all, I will set the scene by presenting a general overview of the education system in KSA and the situation of English language teaching (ELT) at school level. Then, I will direct the focus to the specific context of the current study, COLT.

1.3.1   Education in KSA

The broad context of this study is KSA, where English is taught and used as a foreign language (EFL). The general education system in KSA encompasses five levels; the first is pre-school for children aged 3-6. This level is not compulsory, but many families consider it an important step in the development of their children's education, hence they choose to send their youngsters to pre-school. The next three levels are primary (age 7-12), intermediate (age 13-15), and secondary (age 16-18), which are compulsory particularly if one seeks to go on to higher education. The final stage in the education ladder is higher education, which includes both undergraduate studies (normally ages 19-24, depending on the major), as well as postgraduate studies. Education is available to everyone in KSA free of charge, unless one chooses to attend a private school or university. In KSA, education is mainly single-sex apart from pre-schools, lower level primary grades, and some medical majors in higher education.

The Ministry of Education (MOE) is in charge of the first four levels, whereas the Ministry of Higher Education (MOHE) administers universities and colleges, whether they are government or private ones. However, even though all universities are linked to the Ministry of Higher Education, they still enjoy "a high level of independency in both administrative and academic scopes" (MOHE, n.d.). This entails that the courses and systems found in one university may not necessarily be the same in any other university in KSA. According to MOHE (n.d.), KSA has witnessed a tremendous growth in higher education over the previous five decades. The higher education system in KSA now includes: 21 Government Universities, 18 Primary Teacher's Colleges for men, 80 Primary Teacher's Colleges for women, 37 Colleges and Institutes for health, 12 Technical Colleges, and 24 Private

Universities and Colleges (ibid). However, what concerns me here is the teaching of English in KSA, which will be the focus of the following part.

1.3.2 Teaching English in KSA

In KSA, English is taught as a foreign language (EFL) at all levels of education. Students at public schools are first introduced to English at the age of 12, which is when they are at grade 6. The government curriculum is usually based on a pupils' book and a workbook. The books are written specifically for Saudi students, by a group of Saudi and foreign EFL specialists, and tailored to their needs. Students at government schools have two 45-minute English lessons per week for grade 6, and four 45-minute lessons for intermediate and secondary levels. The majority of English teachers at female government schools are Saudi and they are all expected to hold a bachelor's degree in English language. The textbooks currently used at secondary level are entitled *English for Saudi Arabia*, and were introduced in 1995 (Al-Seghayer, 2011). Although the course book designers emphasize the principles of communicative language teaching in the official guidelines, the actual methods followed in classrooms follow audio-lingual and grammar-translation methods (ibid). This results in an obvious gap between the guidelines given by officials and the actual classroom practices (ibid). The focus of English lessons is usually on vocabulary and grammar across all school levels, even if stated otherwise. As a consequence, "there has been a rapid increase in the percentage of Saudi students who have failed to acquire competency levels in English" (ibid: 45).

At private schools, on the other hand, students are exposed to English as soon as they start attending school, whether it is kindergarten or primary school. The government's English curriculum is a requirement at private schools as well. However, private schools are usually at the advantage of providing extra English classes, in which a special programme is taught. Each private school sets its own special English curriculum. This results in a difference in the students' levels of command of English; students who attend private schools tend to be more competent in English than those who only attend government schools, although exceptions do

exist. As of 2009, nearly "10% of Saudis enrolled at each school level attend some form of private institution" (Al-Seghayer, 2011, p. 88).

Students are admitted to universities based on their achievement in a general aptitude test (GAT), which counts for 70% of the admission score, and final high school grades (30%). The latter consists of the accumulative scores of both grades 11 and 12 and is made up of exams administered at school level. The GAT, on the other hand, is administered at national level and is required for admission to all higher education institutions. English is tested as a separate course in grades 11 and 12, and part of the GAT aims at testing English. Yet, the section on English tests vocabulary, grammar and reading comprehension only.

This introduction gives a flavour of the situation of ELT, in general, in KSA. The following part sheds light on the situation of EFL listening, in particular, at both school and university levels. The aim is to paint a picture of the status EFL listening has in a Saudi context in order to pave the way for stating the problem and rationale of the study.

1.3.3 EFL Listening at School Level

Although the government school curriculum states, as one of its main aims, developing English listening skills, the aim does not seem to be fulfilled. There is merely one lesson in each unit dedicated to the practice of listening, in which there is no explicit teaching of listening skills and strategies; the lessons are simply task-driven. Students are introduced to the title, some pictures and a set of questions to think about as a warm-up. Then a tape is usually played twice while the students listen for answers to another set of questions that tests their comprehension. Consequently, the listening skills developed in such lessons are rather limited. Even though the teacher's book distributed by the Ministry of Education is accompanied by cassettes for listening to texts, many government schools do not have a language laboratory. Students in that situation would be lucky if the teachers had a good cassette player at their service. In cases where neither a lab nor a cassette player is available, the teachers would simply read out the text from the teacher's guide

themselves. Even in schools which have labs, students would normally visit the lab once or twice a month as a maximum.

Texts for a listening lesson are especially tailored for teaching purposes, and even though they are delivered by native speakers, they do not reflect real-life listening situations. Listening is tested in mid-term exams, but not in finals. This may be due to the difficulty of administering a listening test while the exam is running. The assessment of speaking and listening holds only 5% of the final grade, which consequently leads students to undervaluing these skills (Al-Seghayer, 2011). The internet and TV channels are full of opportunities for students to practise listening in English outside the classroom, if students are motivated enough to do so. Yet, even if they do not choose to practise much outside class, they will still not face many challenges in English lessons. The situation reflects, to some degree, the under-estimation of listening skills at school level in the Saudi context. The result is that listening is likely to be one of the least developed language skills for Saudi students and could be a major cause of struggle with listening courses at university level.

1.3.4   EFL Listening at COLT

The consequences of under-valuing listening as a skill, as indicted above, appear to surface when students choose to do a degree in which English is the main medium of instruction. Flowerdew and Miller (2010) state that "as other modes of communication are learned, the focus on listening decreases until students enter college when once again it becomes a major focus via the lecturing system" (p. 159). This situation applies to learners in the context of my study quite well.

The core context of my study is the English Department at the College of Languages and Translation (COLT) at KSU in Riyadh. COLT has under it English and French departments which grant bachelor degrees in the relevant areas. It also manages the Language Unit, which delivers English courses to non-specialist students across KSU; students studying for majors other than English. The Language Unit offers basic courses in general English and English for Academic Purposes. At the English Department, specifically, students study for five years to earn their first degree in

English Language and Translation. The program starts with a focus on language skills during the first four semesters of study. The remaining number of semesters is dedicated to the teaching of translation courses, along with a number of other subjects on culture, semantics, and the like. Hence, listening is taught as a separate module during the first four levels only.

All other modules are delivered in English; hence students would be listening to English throughout the day. The lecture system, which is the norm in higher education, relies heavily on listening skills (Feyten, 1991). Listening is in fact the basis for both formal education as well as language acquisition (ibid). The only courses delivered in Arabic are those on religion, as well as Arabic stylistics and syntax. To add to that, some tutors at COLT do not speak Arabic, thus English would be the only means by which the students can interact with them. Furthermore, students at COLT are expected to be future translators and they take a number of interpretation courses which require advanced levels of listening. This includes courses like sight translation, bilateral interpretation, consecutive interpretation, summary translation and simultaneous interpreting. The picture portrayed above reflects how essential it is to develop listening for students at COLT.

Students starting Level One take a three hour Listening (1) course which basically focuses on training them in listening to and comprehending interviews, conversations and other forms of basic speech dealing with various topics. The book they use, which is *Interactions 1*, presents many exercises whose aim is to help them to become better foreign language listeners. Students at this level receive training on particular basic skills like taking notes, inferring main ideas, following instructions and writing an outline.

Level Two students continue with another three hour Listening (2) course which builds on Listening (1) and aims at equipping students with more listening skills. Texts presented in *Interactions II* are longer stretches of speech with more elaborate grammatical and semantic structures. Students at this level are taught the importance of the mechanics of speech, including intonation, pitch, rhetoric and the effects they

have on meaning. Due to the main aim of the degree, which is producing future interpreters, students are trained to pay attention to what they listen to, practise quick storage of language and content in memory, and to exhibit speed in message retrieval. Therefore, the course seeks to maintain previous skills covered in Listening (1) as well as develop a number of new skills, including the production of summaries, retention and retrieval of information.

Level Three listening course witnesses an advance in terms of difficulty and length of texts students are exposed to. They start dealing with academic lectures which are even longer and more complex stretches of speech than those introduced in Level Two. The exercises in *Mosaic I* aim at training students on more or less the same skills practised previously but this time with longer and more difficult texts. Texts in *Mosaic Π*, which is the course book for Listening (4), aim at further improving the students' listening skills, yet at a more advanced level. By the end of Level Four, students are supposed to have acquired all the basic skills needed for translation courses as well as other courses they will be dealing with in the remaining six levels. This again suggests how essential it is to develop the students' listening skills in general in order to fulfil the major aim of the degree.

A typical listening class at COLT would include between 20 -40 students. The total number of contact hours is usually not taken on the same day and one of them should be in the language laboratory. There are only three language laboratories serving the whole college, which is the main reason why teachers cannot give all listening lessons in the language laboratory. If the lesson is delivered in a normal classroom, then a tape recorder would be used. Teachers normally follow the order and exercises in the course book for each level.

There are two in-terms (50%) and one final test (50%) for each listening course. A usual Level Four listening test would include two parts: a lecture and a short conversation. Appendix A shows a listening test I gave to Listening 4 students in the past. The first part is a short conversation and the students are given a brief introduction to the context in the heading. The questions are similar to TOEFL

listening tests, in the sense that the student has to listen to the question, rather than read it, and then provide an answer to it. Level Four course book gives students practice on this particular technique at the end of each unit. The second part is a lecture on which students have to answer comprehension questions and then write a detailed outline or summary. Both parts reflect to some degree the skills students are trained on during the course. The following part presents the rationale of the study based on the context and my experience as an EFL lecturer at COLT.

1.4   Rationale of the Study Based on Context

No one can deny that poor listening skills would certainly jeopardize the success of L2 learners. I was once a tutor of a Listening (4) course at COLT and witnessed some of the struggle students go through in any listening course. To my surprise, some students used to skip listening classes, yet be anxious when sitting for the listening test. Missing out on lectures could be the result of students taking listening for granted, viewing it as an easy skill not worth spending too much time on. On the other hand, this could be a result of not finding the listening lessons very helpful to them. Listening lessons which focus merely on right answers rarely give students the chance to think about the process of listening itself nor to develop necessary skills and strategies they need for listening (Liu and Goh, 2006). Further, students' being too anxious when having a listening test indicates that they do have a problem with listening in English. Research reports that anxiety is in fact associated with L2 listening and often has an effect on the language learners' performance (Vandergrift, 2007). A concern for the situation of teaching listening in my context motivated me to look for ways to help learners benefit more from listening classes and feel more confident, and hence less anxious, when listening in English. This was one motive behind undertaking this research.

A broader aim was to fill in a gap in the field of L2 listening, which remains under-researched. Specifically, a peer-reviewed scholarly journal, Journal of King Saud University - Languages and Translation, included not a single study on listening in language learning. Although this is a rather new (2011) official publication of KSU, the absence of studies on listening reflect some degree of the neglect this skill

receives in terms of research in the context of my study. The wider context is no exception to this, where "research on listening in applied linguistics remains limited" (Vandergrift, 2010, p. 160). Lynch (2009) further states that "conducting effective research into listening is also complex, given the number of factors that stand in the researchers' way, such as the inaccessibility of what goes on in listeners' heads and the variety of influences on the success or failure of attempts to understand spoken language" (p. 5). The covert nature of listening as well as the ephemeral nature of input are other factors that cause the difficulty of research into this language skill (Graham et al., 2008, Vandergrift, 2010).

When I first embarked on my research, my aim was to attempt a strategy training program to help develop students' EFL listening ability. Yet, after spending some time reviewing the literature on listening strategy training, I was put off my initial aim due to mixed views in the literature on the benefits, or not, of strategy training in general. Research indicates that although studies on strategy instruction in second language learning have been extensive, results remain inconclusive (Plonsky, 2011). Macaro (2010) explains that "there is some limited evidence that strategy instruction can be effective" (p.296). This also holds true for L2 listening, as Lynch (2009) states, "there is much less evidence for the positive effects of strategy *training*, in terms of improved listening" (p.82, emphasis in original). In fact, listening strategy instruction which aimed at bringing about improvements in learners' listening ability has led to mixed results (Graham and Macaro, 2008). Further, Goh and Hu (2013) state that "there are even calls to abandon a strategy approach in preference for more listening practice" (p. 15).

I held onto the idea of developing strategic listeners but looked for other ways to promote that. In my endeavour to find ways to develop EFL listening ability, I came across a chapter in Anderson's *Cognitive Psychology* (2005) on expertise. This caught my attention, as development of any skill is aimed at some form of expertise. In fact, Field (2008b) states that "in order to train learners more successfully in second language listening, we need to treat the skill as a form of expert behaviour" (p.3). I read the chapter on expertise in which Anderson mentions the term deliberate practice. This again caught my interest, for it seemed to me a form of

practice that may be applicable to the language classroom. Therefore, I decided on integrating this into the listening sessions as an attempt to achieve expertise in L2 listening. One element related to expertise, and which is apparently lacking in my context, is developing students' metacognitive knowledge. This is a major area for the success of L2 listeners, for as Goh (2005) states, "a finding that has emerged quite consistently is that expert listeners make use of metacognitive strategies more frequently" (p.74). Also, Macaro (2010) makes clear that it was L2 listening studies that involved a strong metacognitive element in the instruction, by encouraging learners to reflect and evaluate their strategic behaviour in listening, which obtained more positive results (p. 295). Consequently, I argue in this study that to achieve L2 listening expertise, metacognitive instruction and deliberate practice are crucial elements. The term "L2 listening expertise" itself, although coined by Goh in 2005, seems not to have been taken further and, to my knowledge, no studies to date have been conducted to investigate the concept. Thus, this study is an attempt to revive the concept of "L2 listening expertise" and moreover add an essential element to it that has been overlooked by Goh, which is deliberate practice.

Hence, this study suggests a new way of developing the listening proficiency of language students, by incorporating both metacognitive instruction and deliberate practice into L2 listening lessons. The main aim of the study was to explore the impact of both metacognitive instruction and deliberate practice on the participants' EFL listening level and metacognitive knowledge. The main concepts will be further explained in Chapter Two, where I review the relevant literature and end by posing the research questions the study aims to answer.

1.5   Summary & Thesis Outline

This study contributes to the growing body of research into L2 listening by applying both metacognitive instruction and deliberate practice to the listening lessons at one of the leading universities in KSA and hence proposes a new way of developing the listening proficiency of L2 students. I presented in the sections above the theoretical and contextual background of the study. I ended this presentation with the rationale based on the context of the study and my own experience as an EFL lecturer at

COLT. The following chapter reviews the relevant literature and aims at situating the study within the current research on L2 listening.

The thesis consists of six chapters. Chapter One has dealt with the theoretical and contextual background of the study, and concluded with stating the rationale of the study based on the context. Chapter Two presents a review of relevant literature, with a focus on the main concepts that informed the study. The chapter concludes with a statement of the rationale of the study stemming from the literature review and then poses the research questions. Chapter Three deals with the research methodology of the study, with a focus on the research paradigm, ethical considerations, the sample, data collection instruments, and data collection stages. Chapter Four discusses the quantitative and qualitative data analysis procedures. Chapter Five will be dedicated to presenting the findings of the study. Finally, Chapter Six will present a discussion of the findings, theoretical and pedagogical implications, contributions of the study, limitations of the study, suggestions for future research, and concluding remarks.

Chapter 2 Literature Review

2.1   Introduction

In the previous chapter, I presented the scope as well as contextual background of the study. I discussed the significance of listening in language learning, and then turned the discussion to the specific context of this study, KSA. The chapter concluded by presenting a rationale for conducting the study that stemmed from my own context and experience as an EFL teacher at COLT. This chapter is devoted to reviewing the literature relevant to my study. I aim at situating my study within the current literature on L2 listening instruction. The review falls into four major parts, based on the areas that come into play throughout this research. The first part of the review is dedicated to the main topic governing the study, which is listening comprehension in general. The following two parts relate to theories of listening processes and learning to listen, respectively. The last part of the literature review presents the concept of L2 listening expertise. Under this section, I discuss the three approaches which I argue are central to achieving L2 listening expertise. This chapter concludes with presenting the rationale of the study based on the literature followed by the research aims and questions.

2.2   Listening Comprehension

Listening, Vandergrift (2003c) states, is "an invisible mental process, making it difficult to describe" (p.98). Yet what characterizes listening, and distinguishes it from hearing, is understanding (Wright, 2004). Listening involves mental as well as physical processes, whereas hearing is merely a physical process. Hence, Rost (2001) defines listening as "a complex process that allows us to understand spoken language" (p.7). This complex process involves both neurological and cognitive processes which consequently "enable the hearer to decode and make sense of speech" (Wright, 2004, p. 4). Researchers argue that listening should not be viewed as a single process, but rather as "a bundle of related processes" (Lynch, 2002, p. 193). A consensus among researchers nowadays is that listening is an active process,

challenging the older view that listening is a passive skill (Buck, 2001, Lynch, 2002, Vandergrift, 1999). Understanding is not something that happens simply as a result of what the speaker says (Anderson and Lynch, 1988). Listeners play a significant role in the process through activating different types of knowledge, as well as applying what they know to what they hear in order to understand what the speaker means. It is a matter of knowledge construction, rather than reception (Rost, 1990, p. 3).

Listening has a number of features that distinguish it from other language skills. One is that it takes place in real time, and hence entails the necessity for automatic processing (Buck, 2001, Lynch, 2002). "Listening is a highly automatic process," Field (2004) says, "so automatic that we tend to take it for granted" (p. 92). Listening also depends on information that is transient in nature and which unfolds in real time (Field, 2008a). The recursive nature found in reading is absent in listening. This, Field believes, seems to be a main source of L2 listener anxiety. Listening also witnesses the "presence of a rich prosody" as well as "characteristics of natural fast speed" (Lynch, 2002, p. 194). Recurrent terms used in the literature to refer to the process of L2 listening usually signify lack of clarity, the transient nature of speech, physical pressure as well as the listener being overwhelmed (Lynch, 2009). For these reasons, L2 listening has over the years "proved to be a difficult skill" (Graham and Macaro, 2008, p. 747). In fact, research evidence indicates that listening is the skill language learners feel the least comfortable with (Graham, 2006b), and that it is the most difficult skill to learn (Vandergrift, 2004).

Rost (2001) states that listening is not only the language skill most widely used, but also "a critical means of acquiring a second language" (p. 7). However, the role listening comprehension plays in language acquisition and communication was one of neglect for many years. In fact, listening has been overlooked for a long time in language pedagogy and research (Rost, 2002). Listening appeared to play a critical role in audio-lingual methods, yet the role was merely aimed at developing a better pronunciation for speaking (Vandergrift, 2003c). As mentioned previously, it was only during the communicative language teaching era that listening finally earned "its rightful place" (Vandergrift and Goh, 2009, p. 395). During that era, language

was taught for the purpose of communication, in which listening was an essential skill. Listening was also viewed as "a channel for comprehensible input" (ibid). Nowadays, the pre-eminence of listening in instructional methods, particularly in the early stages of language acquisition, is well-established (Vandergrift, 2003c).

This change in the perception of L2 listening comprehension brought about interest in describing its processes and how listening is taught in the language classroom. The communicative approach to language teaching also brought about many discussions on ways to teach and test listening as a communication skill (Goh, 1998). The status of listening in language learning as well as its complex nature calls for more research in the field. Further, due to L2 learners viewing listening as the most difficult skill to improve, it is significant to "examine approaches that might enhance listening comprehension" (Graham and Macaro, 2008, p. 748). Up until the present time, the development of listening received "the least systematic attention from teachers and instructional materials" (Vandergrift and Goh, 2012, p. 4). There is plenty of evidence that indicates listening is still under-valued (Field, 2008a). My study is an attempt to fill in a gap in this respect. However, before turning to approaches to teaching L2 listening in the language classroom, it would be useful to understand listening processes and how students learn to listen. These areas will be the focus of the following two sections.

2.3   Theories of Listening Processes

To understand listening, Vandergrift (2010) states, one should acknowledge the interaction between physiological and cognitive processes at various levels, along with the role contextual factors play. Buck (2001) further explains that both linguistic and non-linguistic knowledge are involved in operating the language comprehension system. The former mainly includes phonology, syntax, semantics, and discourse structure. The latter, on the other hand, is concerned with "knowledge about the topic, about the context, and general knowledge about the world and how it works" (ibid: 2). A number of models have been proposed in the literature to explain how this knowledge is applied to incoming speech. Yet, when compared to other language skills, very limited theoretical models that explain listening have

been proposed (Vandergrift, 2010). Advances in cognitive psychology have played a significant role in gaining a better understanding of the processes which are involved in listening comprehension (Lynch, 2006). Graham and Macaro (2008) state that two theories have been "particularly influential on research" on listening processes (p. 748). The two theories are Anderson's three-stage model and the interactive model, which will be the focus of the next parts.

2.3.1 Anderson's Model

From the viewpoint of cognitive psychology, listening is primarily "conceptualized as an act of information processing" (Imhof, 2010, p. 98). According to Lynch (2009), information processing is one of the main theories of listening that was developed during the computer revolution of the 1970s and 1980s. The driving force behind this theory, Lynch says, was "research into artificial intelligence" (ibid: 10-11). It has been "a dominant theory of learning and memory" ever since (Slavin, 2009, p. 158). Information Processing is defined as "a cognitive theory that describes the processing, storage, and retrieval of knowledge in the mind" (ibid). It is performance, rather than behaviour, that functions as the key word in this theory (Ortega, 2009).

The information processing view of listening "claimed that comprehension of a given message only occurred when it was internally reproduced in the listeners' mind" (Lynch, 2006, p. 33). Anderson's three-stage comprehension model comes under this view of listening (ibid), which in itself is a model that has influenced the understanding of learner listening comprehension (Goh, 2002). Language comprehension, according to Anderson (2010), involves three stages: perceptual processing, parsing and utilization. It is during the first stage, perception, that the acoustic message is originally encoded. This stage of listening involves bottom-up processing (see following section), and becomes gradually automatic via practice (Vandergrift and Goh, 2012). In the parsing stage, the message which is carried by words and retained in working memory is transformed into mental representations that include the combination of meanings of initial words. The first two stages, perception and parsing, "continue to inform each other within the available time,

until a plausible mental representation emerges" (ibid: 42). The final stage is utilization during which a listener, or reader, uses the mental representations of the sentence's meaning. During utilization, listeners use top-down processes by using information that is not part of the linguistic input, and which is stored in long-term memory, to interpret the parsed speech (ibid). Although these three stages are partially ordered in time, in reality they do also partially overlap (Anderson, 2010). According to O'Malley et al. (1989), the three stages "overlap with and are consistent with listening comprehension processes identified elsewhere" (p. 419).

One major problem listeners may face in the perception stage is the segmentation of the stream of words, since speech is not broken into distinct units the way written text is. This explains one of the main sources of difficulty for listeners, particularly those listening to a foreign language. Listeners rarely record meanings passively after having mapped a sentence into a representation of its meaning. Some form of utilization takes place as the final stage. Making sense of a sentence more often than not requires making connections and inferences. To understand a particular sentence, the listeners must make quite a few inferences. An inference compels the listener to go beyond the text to what is implied in the meaning (Anderson, 2010).

According to Lynch (2009), Anderson's three stage model of language comprehension has had two major effects on the listening strategy research. One is that it has provided researchers with the terms they have used to analyze their data, e.g. (O'Malley et al., 1989), and second was the emphasis placed on cognitive and metacognitive strategies, and the downplaying of socioaffective strategies. One of the major teaching applications of this model is the emphasis placed on practice as a key to L2 learning (Cook, 2001). Gradual development occurs through experience and practice, and hence, "information that was new becomes easier to process, and learners become able to access it quickly and even automatically" (Lightbown and Spada, 2006, p. 39). Practice which leads to automatization plays a central role in Anderson's model (Mitchell and Myles, 2004). This three-stage model is in fact "a general cognitive model of skill acquisition" that is applicable to any aspect of L2 acquisition requiring proceduralization and automatization (ibid). The skill acquisition theory will be further discussed in Section 2.4.1. However, since

Anderson's three-stage model "presents listening as a linear process," Graham and Macaro (2008) state, "a more convincing model would be a recursive one, with listeners operating within more than one phase at a time" (p. 748). This model will be the focus of the next part.

2.3.2 Interactive Top-Down & Bottom-Up Processing

Bottom-up and top-down refer to the order in which various forms of knowledge are applied during comprehension (Buck, 2001). The two terms distinguish between information derived from perceptual sources and that gained from contextual sources (Field, 2004). These processes are the usual way that characterise the manner external and internal resources are used by the listener (Lynch, 2006). An understanding of the difference between these two processes, the interaction between them, and the forms of knowledge applied in each process is essential to understanding comprehension processes (Vandergrift and Goh, 2012). Rost (2006) believes that these two processes have a direct impact on L2 listening instruction. Hence, the significance of making sense of these processes before moving to teaching L2 listening becomes evident.

Researchers in the field state that the bottom-up model of listening was the first to be developed in the 1940s and 1950s (Brown, 1990, Flowerdew and Miller, 2005). This view of comprehension was dominant in the foreign language classroom for decades, and was based on the assumption that comprehension was constructed from the bottom (ibid). Lynch (2002) explains that this view involves "piecing together the parts of what is being heard in a linear fashion, one by one, in sequence" (p. 197). Being seen as a linear process entails that meaning is arrived at as the final step in the process (Nunan, 2002). This is in fact a mechanical process in which listeners "gradually build meaning from phonemes to words to increasingly larger units of meaning" (Vandergrift and Goh, 2012, p. 18). In this model, listeners draw mainly on linguistic knowledge, including phonological, syntactic and semantic knowledge, to arrive at the meaning (ibid).

Yet, Field (2008a) argues that due to it being online, listening cannot be assumed to progress easily in a bottom-up way. The bottom-up model is in fact only a single way of approaching listening, which views a listener functioning like a speaker in reverse (Field, 2004). Further, a deficit of the bottom-up approach is that it does not take into account some vital elements in a communication process, particularly the interlocutors and the context. This model taken alone entails that communication can happen without any account of the speaker, hearer or the larger context (Flowerdew and Miller, 2005). Therefore, this model is simply not sufficient on its own and the necessity of another model is inevitable (Brown, 1990). This leads us to the top-down model, which is in a way the converse of the bottom-up model (Lynch, 2002).

The top-down model is viewed as a holistic approach that proceeds from whole to part with a focus on the meaning rather than on individual parts such as sounds, words or sentences (ibid). The emphasis in this model is on the use of background as well as contextual knowledge in processing a text. This model was developed at a point in time when researchers realized that participants are not capable of identifying abridged sounds without knowledge of the words they are made up of (Flowerdew and Miller, 2005). The listener here makes use of incoming sounds as hints while actively reconstructing the original meaning of the text (Nunan, 2002). In this model, the listener relies on what is already known to help make sense of what is heard (Lynch, 2006). The use of background knowledge can serve one of two different purposes: either to make up for any gaps in understanding or to enhance a message that is already fully decoded (Field, 2008a). This may explain why Flowerdew and Miller (2005) suggest listening is purpose-driven under this model, since listeners would attend to only what they need to understand the message.

In reality, however, these two processes seldom operate independent of each other (Vandergrift and Goh, 2012). Research as well as daily experiences point to the fact that the processing of various forms of knowledge does not happen in a definite order; this may occur simultaneously or in any suitable order (Buck, 2001). A competent listener makes use of both top-down and bottom-up processes to construct an adequate understanding of the message (Lynch, 2002). Yet, the extent

to which one listener may depend on one of these processes more than the other is due to the purpose for listening, age and level of the learner, as well as the context of the listening act (Vandergrift, 2011). The distinction between these two processes encompasses the literature on first and second language comprehension alike, the consensus being that both exist and are significant in terms of language comprehension (Goh, 1998). Yet, what seems to be lacking is an agreement on the way the two processes work during comprehension (ibid).

When put together, the interactive model emerges from the two previously mentioned models. This model has been developed in the context of reading, but since listening involves both bottom-up and top-down processing, the interactive model "applies equally well to listening" (Flowerdew and Miller, 2005, p. 26). One of the advantages of this model over directional ones is that "it allows for the possibility of individual variation in linguistic processing" (ibid: 27). Efficient listening, which is the aim of any L2 learner, involves "the integration of whatever top and bottom information the listener is able to exploit" (Lynch, 2006, p. 104). In terms of teaching, Lynch (2006) suggests that a listening teacher should consider these two approaches as complementary, rather than mutually exclusive. Efficient listening, he says, entails the use of both top and bottom information available to the listener in an integrative way. Hence, listening teachers should encourage their learners to use both approaches in an interactive way.

To conclude, the process of L2 listening is a very complex one and is not, as Vandergrift (2003a) argues, "either top-down or bottom-up, but an interactive, interpretive process where listeners use both prior knowledge and linguistic knowledge in understanding messages" (p. 427). Graham and Macaro (2008) hence regard the interactive model as a more convincing one, for it is likely to be "both compensatory and confirmatory," the former operating when "comprehension problems occur," while the latter is "when listening is relatively problem-free" (pp. 748-749).

2.4   Learning to Listen

Language is comprehended through either reading or listening and, although listening comprehension is believed to be more basic than reading, many studies have focused on the latter to the exclusion of the former (Anderson, 2005). While listening, learners process incoming speech under severe time pressures, hence processing that requires less attentional resources becomes an advantage (Vandergrift and Goh, 2009). This is known as automatic processing. Being able to process information automatically is a desired goal in language learning, since automaticity is believed to reduce the cognitive load placed on learners. This need is even more crucial for L2 listeners due to the ephemeral nature of listening. The skill acquisition theory best explains how automaticity is achieved. This theory will function as a framework for my study due to two reasons: one is that this theory is applicable to any cognitive skill, listening being no exception. Second, with expertise being a major concept in my study, it is useful to draw on the skill acquisition theory which relates to the development of expertise in any skill. In fact, Anderson's skill acquisition theory "links up nicely to ideas about expertise" (Bereiter and Scardamalia, 1993, p. 89). Examining the nature of expertise in a variety of fields has influenced the understanding of the mechanisms underlying skill acquisition (Anderson, 2010). The following part sheds light on the skill acquisition theory, and then turns the discussion to controlled and automatic processing.

2.4.1   The Skill Acquisition Theory

The skill acquisition theory is "a particular kind of information processing theory" which explains "L2 learning as the process of gradual transformation of performance from controlled to automatic" (Ortega, 2009, p. 106). According to DeKeyser (2007b), this theory explains the way people progress, from novice levels to proficiency, in a variety of skills including cognitive and psychometric ones. Anderson (2010) argues that the development of any skill consists of three stages: cognitive, associative and autonomous. The first stage, the cognitive stage, is when learners "commit to memory a set of facts relevant to the skill," and they "typically rehearse these facts as they first perform the skill" (ibid: 2). The use of knowledge in

this stage is so slow due to it still being in declarative form. The second stage is the associative stage in which errors in the initial understanding are first gradually noticed and dealt with. Then, "the connections among the various elements required for successful performance are strengthened," resulting in "a successful procedure for performing the skill" (ibid). However, it is not always the case that the procedural knowledge replaces declarative knowledge. Sometimes, the two forms of knowledge may exist alongside, such as speaking a foreign language fluently while still being able to remember many rules of grammar. The final stage is the autonomous stage in which "the procedure becomes more and more automated and rapid" (ibid).

In the area of second language acquisition, as well, the skill acquisition theory draws on the distinction between declarative and procedural types of knowledge (Ellis, 2008). This entails that, similar to other kinds of skill, language learning is characterized by a progression from an initial declarative knowledge stage, which involves controlled processing, to a final procedural stage, where knowledge becomes automatic. Skills, Ellis states, are learnt as a result of practice. These two types of knowledge, declarative and procedural, are seen as a dichotomy, with the former evolving into the latter via practice (ibid). According to Anderson (2005), it is the procedural knowledge rather than declarative knowledge which characterises any skilled performance.

One major difference between a novice listener and an expert one, according to Field (2008a), is that the latter "commands a set of decoding routines that are highly automatic" (p. 163). Reducing the time needed to execute the task, the percentage of errors, and the amount of attention required needs a large amount of practice (DeKeyser, 2007b). This practice is what leads to "gradual automatization of knowledge" (ibid: 99). Such a gradual transformation takes place by engaging in relevant practice "over many trials" which in turn "enables controlled processes gradually to be withdrawn during performance and automatic processes to take over the same performance"(Ortega, 2009, p. 84). The following part will discuss controlled and automatic processing in further detail.

2.4.2 Controlled & Automatic Processing

Controlled processing, according to Vandergrift and Goh (2012), "involves conscious attention to and processing of elements in the speech stream" (p.19). The limited linguistic knowledge L2 learners have does not allow for automatic processing of everything they hear. In fact, as Badger and Yan (2009) state, students learning to listen in a second/foreign language "are at least partially at the controlled stage" (p.73). However, controlled processing is not enough and comprehension will most likely suffer in such a case. Depending on what actions learners take, comprehension will either break down or the listeners will resort to whatever strategies at their disposal to compensate for missing information (Vandergrift and Goh, 2012).

Yet, Johnson (2005) explains that "a learner's behaviour progressively becomes automised as skill develops over time" (p.18). The effect of automatisation, he says, is to "free channel capacity so that attention may be invested in other important areas" (ibid). Automatization is simply defined as "the process of making automatic" (Johnson, 1996, p. 89). Automaticity, which is "the spread and ease with which we ultimately carry out tasks," is the result of the slow process of automatization (DeKeyser, 2001, p. 125). Automatization, or proceduralization, "entails the conversion of declarative or explicit knowledge (or 'knowledge that') into procedural or implicit knowledge (or 'knowledge how')" (Ortega, 2009, p. 84). This conversion, according to Johnson (1996), brings with it the advantages of procedural knowledge, while eliminating the disadvantages of declarative knowledge.

Anderson (2010) argues that by becoming more proficient at a task, people seem to be using less of their brains when carrying out that particular task. Automaticity occurs, he says, when practice reduces most of the need for central cognition. Examples usually used to illustrate the difference between these two processes include learning to ride a bicycle or drive a car. When learning to ride a bike for the first time, for instance, we need to pay conscious attention when getting on the bike, maintaining balance, steering and moving pedals. When time passes, and through

practice, all of these processes shift from conscious attention, which is controlled, to become automatic (Vandergrift and Goh, 2012).

The role memory plays in the comprehension process is significant (ibid). Long-term memory and working are two components of memory identified in the literature. The former comprises the prior knowledge and previous experiences listeners hold. This type of knowledge, Vandergrift and Goh say, forms "the bank of information that listeners access to interpret what they are trying to understand," and "shapes the interpretation of what listeners hear" (p.20). The latter, on the contrary, has a very limited capacity. Yet, the amount of information listeners can hold in their working memories depends largely on their language proficiency level. Automatic processing of information allows for the process of new incoming speech by the attentional resources of the working memory. In listening, automatization occurs at both phonological and syntactic levels (Vandergrift and Goh, 2009).

Both brain imaging and behavioural studies confirm that the way a skill is carried out can change with practice (Anderson, 2005). The development and role of automaticity is an aspect of the skill acquisition theory that has attracted attention for a long time (Segalowitz, 2003). One characteristic most commonly associated with automaticity is fast processing. Consistent practice and massive amounts of repetition are required to promote automaticity (ibid). Fast processing is particularly desirable in the case of L2 listening due to listening being online and ephemeral in nature. For L2 listeners to be able to process the input faster, declarative knowledge of the target language, especially phonological knowledge, must be automatised (Goh, 2005). Research indicates that the comprehension of L2 learners suffers "as a result of the inability to automatise word recognition skills" (ibid: 66). Although automaticity is the great freer of mental resources, it is achieved at the cost of loss of conscious access (Bereiter and Scardamalia, 1993). When losing consciousness, a learner can no longer introduce changes easily to a well-practiced procedure (ibid).

The following section will discuss L2 listening expertise. I will highlight the current approach to L2 listening instruction followed in most language classrooms today,

which is the comprehension approach. Then I will discuss the metacognitive approach to L2 listening, which will be partly followed in my study. Finally, I will consider the deliberate practice approach, which is the new element I am introducing into the L2 listening classroom.

2.5   L2 Listening Expertise

The term expertise has existed ever since "the dawn of civilization", yet it was not until recent times that the nature and development of it was looked into (Bereiter and Scardamalia, 1993, p. 2). A great deal of research has been conducted since the mid-1970s which aimed at investigating expertise in various domains such as music, chess, mathematics and computer programming (Anderson, 2010). Research in this area helped in identifying ways by which problem solving can become more effective through experience (ibid). Expertise is defined by Ericsson (2006a) as "the characteristics, skills, and knowledge that distinguish experts from novices and less experienced people" (p. 3).

In the sphere of language learning, it is essential to achieve high levels of listening due to the fact that this particular skill is the key to acquiring other language skills. In fact, "significant development in an L2 requires a great quantity of listening" (Rost, 2006, p. 49). Further, listening competence has a critical impact on language learners' motivation (Field, 2008a). L2 listening expertise, a term coined recently by Goh (2005), is developed in part by the growth of systemic knowledge of the L2, including phonology, syntax, semantics, as well as pragmatic and discourse knowledge. This declarative knowledge needs to be proceduralized or automatised for effective language use to happen. Yet, declarative knowledge on its own is not enough to arrive at L2 listening expertise (ibid). Besides linguistic knowledge, development of L2 listening expertise requires, Goh says, metacognitive knowledge, strategies, and control. Control, according to Goh, includes both knowledge and strategies that enable the L2 listener to process the listening input more effectively. Expertise includes, Goh (2005) says, "not just what is known, but knowing when and how to use what is known" (p. 14), the latter being achieved through experience and training.

Research involving brain imaging, Anderson (2005) states, demonstrates that "more practice means more efficient mental execution" (p.280). Extensive practice, Anderson says, can facilitate the development of "the high levels of expertise in novel domains that have supported the evolution of human civilization" (p.281). The study of a foreign/second language is no exception. However, as Ericsson (2006b) explains "extensive experience in a domain does not invariably lead to expert levels of achievement" (p. 685). A major finding of research on expert performance, Baron and Henry (2010) state, indicates that "innate talents or aptitudes are far less crucial in attaining unusually high levels of performance than diligent and persistent application of the basic principles of deliberate practice" (p. 63). Reviewing the literature on expertise points to the significant role practice plays; a much larger role than previously recognized by psychologists (Kellogg, 1995). Producing experts who are capable of performing at high levels of proficiency is one aim of education and training. To attain expertise, however, one must indulge in extensive and intensive practice (ibid).

The nature of practice aimed at here, however, differs from practice in the audio-lingual methods of language teaching which focused on structures, rather than behaviour. Mechanical drills in that era were practised repeatedly and deliberately aiming at the production of certain target features of the language. To develop automatization, which entails changing behaviour, learners must be involved in practising the actual behaviour, rather than de-contextualized structures. In regards to what practice in the area of second language learning entails, DeKeyser (2007a) explains that this concept "remains remarkably unexamined from a theoretical point of view" (p. 1). In fact, the issue of practice in the post-audiolingual time has been rarely addressed "head-on" (ibid: 8). In SLA, DeKeyser says, the term practice refers to "specific activities in the second language, engaged in systematically, deliberately, with the goal of developing knowledge of and skills in the second language" (ibid). The definition DeKeyser gives for practice does not differ much from the way Ericsson et al. (1993) define the term deliberate practice, which according to them is "activities that have been specially designed to improve the current level of performance" (p. 367). Yet, neither DeKeyser nor Goh mention the

term deliberate practice in their works on practice in SLA and L2 listening expertise, respectively.

Hence, I argue that in order to achieve expertise in L2 listening, deliberate practice along with metacognition are two crucial components. I will first start by explaining the comprehension approach in L2 listening. I discuss the comprehension approach due to its prevalence in most language classrooms around the world, the context of this study being no exception. Also, features of this approach remain in listening classrooms even when other approaches may be applied. Then, I will turn the discussion to two other approaches that I integrated in my study: the metacognitive approach and the deliberate practice approach. I discuss the metacognitive approach because I adopt many of its features in my research, especially in phase one of the study. The two concepts metacognition and deliberate practice informed the study and I believe are the essential requirements to achieve expertise in any domain.

2.5.1   The Comprehension Approach

As mentioned previously, it was only with the emergence of CLT that listening gained its place in the language classroom (Vandergrift and Goh, 2009). During the era of CLT, the perception of listening changed from something that can be easily "picked up", to a complex communicative skill that has to be taught similar to other language skills (Vandergrift and Goh, 2012). CLT brought with it an emphasis on practicing core listening skills, such as listening for gist, listening for details, selective listening and inferencing (ibid). Another key development during the CLT era was the introduction of a pre-listening phase aiming at activating learners' schema knowledge (Goh, 2008). All of these elements form what is known today as the comprehension approach, which is the norm in most listening classes around the globe (Field, 2008b). The key stages of this approach are summarized in Figure 2.1 below.
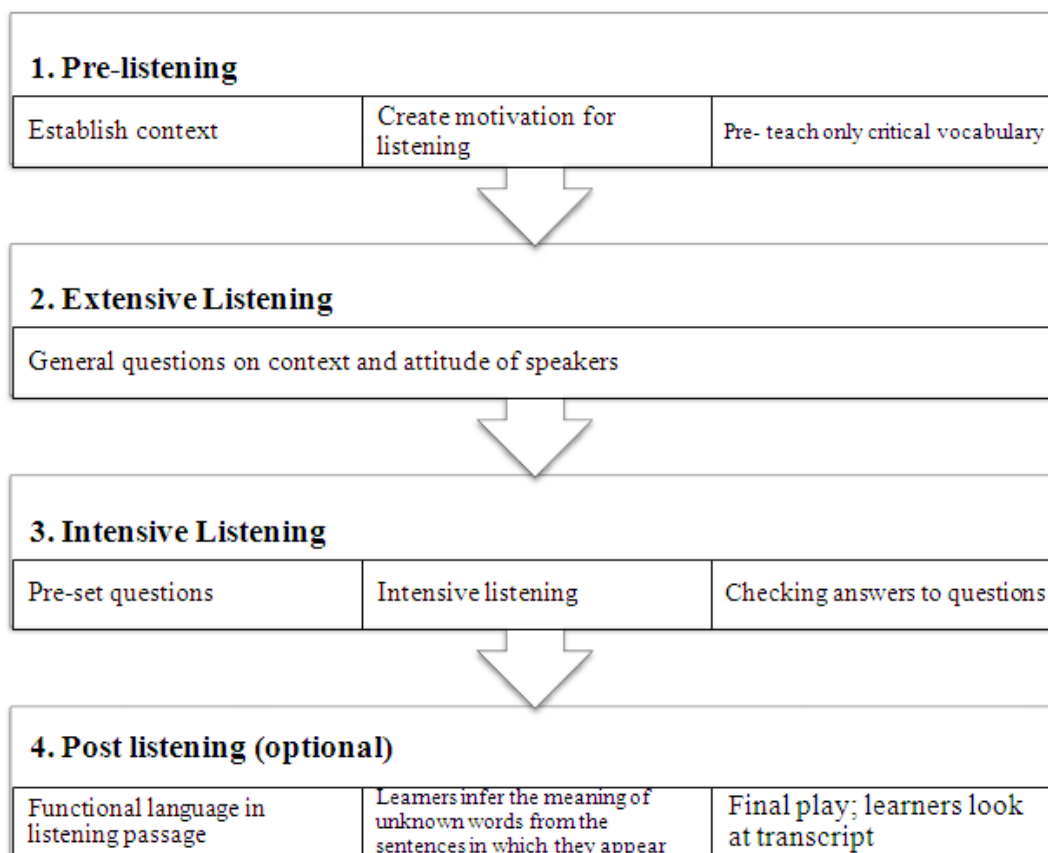
Figure 2.1 The Comprehension Approach (Based on Field, 2008)

Among the benefits of this approach mentioned by Field (2008a) is that it provides the learners with exposure to listening texts that present samples of the target language as well as experiences of how to arrive at the message. Also, it enables the learners to pass exams. Despite the fact that learners are given more listening activities in classrooms today, they are still left on their own to find ways for developing their listening abilities, with minimal direct support from teachers (Vandergrift and Goh, 2012). Many of the practices of the comprehension approach will remain in the listening classroom, yet one must be aware of its limitations.

One of the limitations of the comprehension approach is the fact that it is teacher-centred, with the teacher setting the questions passing judgements on answers, and deciding which parts of the recording to replay (Field, 2008a). This shortcoming makes the comprehension approach not in line with CLT. Further, with its emphasis

on "methods associated with testing rather than teaching, the comprehension approach tends to isolate learners" (ibid: 31). Listening is the most internalized of the four language skills, hence, is by its nature isolating. Yet, with a focus on the right answer, rather than on discussing what has been heard, listening teachers are increasing this isolating effect (ibid). With this being the case, the atmosphere in a listening class resembles that of an exam rather than that of "a forum for communicative practice of the second language" (ibid). The comprehension approach does not either provide the learners with strategies to deal with listening outside the classroom. This could explain why some listeners achieve pretty high levels of success in classroom listening but would be unable to achieve the same success in listening events outside the classroom (ibid).

The basic assumption behind the comprehension approach is that simple exposure to the language would enable learners to advance, hence it makes "no real provision for *development*" (Field, 2008a, p. 99, emphasis in original). The focus it places on the product of listening, while neglecting the actual process, is "the most fundamental flaw of the comprehension approach" (ibid: 81). Thus, this approach does not serve the purpose of teaching L2 listening sufficiently, as Goh (2008) explains "with a focus on the product of listening, every activity becomes a test of the learners' listening ability" (p.191). This consequently leads to further anxiety on behalf of the L2 learners (Vandergrift and Goh, 2009). For a listening class to be effective, it must recognize listening as "an active, strategic and constructive process" (ibid: 402). Yet an emphasis on trying to understand the message leaves no room for the learners to step back and learn how the listening input is actually dealt with (Vandergrift and Goh, 2012). Neither do listeners in the comprehension approach receive any guidance on how they can self-regulate and evaluate their efforts to improve their listening level (ibid). As Goh (2005) says "to help learners develop expertise in listening, some of these practices will have to change" (p. 77). The three- stage lesson of pre-while- and post-listening is still helpful, Goh says, yet the emphasis in a listening lesson must expand to include knowledge about listening processes (ibid). The lack of focus on the actual process of listening in the comprehension approach has given rise to the metacognitive approach.

2.5.2   The Metacognitive Approach

Recent discussions on teaching listening comprehension have shifted the focus to the roles of strategy training and metacognitive knowledge in developing listening (Goh, 2008). Yet, evidence for the effectiveness of listening strategy training is quite mixed (Lynch, 2002). The metacognitive approach is more comprehensive than strategy training as it tackles not only strategies but further "the development of learners' metacognitive knowledge of themselves as L2 listeners and the mental and social processes of listening" (Goh and Hu, 2013, p. 2). Research indicates that it is the use of metacognitive knowledge that enables proficient listeners to control comprehension processes (Vandergrift and Goh, 2012). In fact, having a rich repertoire of metacognitive knowledge is characteristic of students with good listening abilities (Goh, 2005). In the area of listening development, interventions that were more successful focused largely on the development of metacognitive strategy (Macaro et al., 2007). Empirical evidence in the field also suggests the positive impact the metacognitive approach has on listening development (Goh and Hu, 2013).

At the heart of the metacognitive approach lies the concept of metacognition, which originated as a theoretical construct from the work of Flavell (1979). Simply defined, metacognition is "cognition about cognition" (Flavell, 2000, p. 16). Metacognition, Flavell (1979) argues, includes both metacognitive knowledge and metacognitive experiences. The latter is defined as "any conscious cognitive or affective experiences that accompany and pertain to any intellectual enterprise" (ibid: 906). Metacognitive experiences can activate strategies aimed at cognitive or metacognitive goals (ibid). Metacognitive knowledge, on the other hand, consists mainly of "knowledge or beliefs about what factors or variables act and interact in what ways to affect the course and outcome of cognitive enterprises" (p. 907). Flavell identified three major categories of metacognitive knowledge, which are person, task and strategy knowledge. These three types of metacognitive knowledge are defined in the light of L2 listening in Table 2.1 below:

Metacognitive Knowledge	Definition
• **Person Knowledge**	the way individuals learn to listen and the factors that influence one's own listening
• **Task Knowledge**	the nature and the demands of listening tasks
• **Strategy Knowledge**	effective ways to learn or accomplish a listening task

Table 2.1 MK in L2 Listening, Based on Goh (2008)

The term metacognition was later applied to language learning by Wenden (1987). Wenden (1998) explains that strategic knowledge may be classified under task knowledge, but it is considered as a separate category in the literature due to "the unique role it plays in the processing (rather than planning) of learning" (p.518). Research indicates that metacognitive knowledge "characterizes the approach of expert learners to learning" (ibid: 520). Further, a general consensus among researchers in the field is that metacognition enhances both thinking and comprehension (Vandergrift and Goh, 2012). Besides metacognitive experiences and metacognitive knowledge, strategy use is identified by Vandergrift and Goh as the third component of metacognition (ibid). This component "builds on strategy knowledge," yet it also includes "awareness of when and how to use specific strategies" (ibid: 89). In regards to these three components of metacognition, experience is "an involuntary response," whereas knowledge and strategy are "amenable to instruction" (ibid: 101).

Metacognition can partly compensate for some of the limitations in students' learning, yet the role it plays in L2 listening has only been looked into recently (Goh and Hu, 2013). Metacognition is in fact critical to the learning process, as it impacts on the way learners plan, manage and direct their own learning (ibid). One significant virtue of metacognition is that it leads learners to being "active participants in their own performance rather than passive recipients of instruction and imposed experience" (Paris and Winograd, 1990, p. 18). By promoting learners' awareness of their own thinking, teachers help in shifting the responsibility of monitoring learning to the learners themselves, which consequently leads to

"positive self-perceptions, affect and motivation among students" (ibid: 15). Metacognition has an impact on the way learners approach tasks and on their beliefs in their own abilities. Hence, increasing students' metacognition about learning has a motivational as well as a cognitive consequence. The latter is manifested by enabling learners to tackle problems strategically, while the former is seen by students feeling "*empowered* to be successful" (ibid: 43, emphasis in original). The comprehension approach, as mentioned previously, leads to further anxiety on behalf of the learner due to its focus on the right answer. The metacognitive approach, however, tackles this issue, as it has shown to decrease language anxiety and increase confidence when approaching a listening task (Goh and Taib, 2006). The following part will demonstrate how metacognitive instruction can be carried out in the L2 listening classroom; how to raise awareness to metacognitive knowledge in L2 listening classes. Then I present examples of studies which have applied metacognitive instruction in L2 listening lessons, or aimed at uncovering the metacognitive knowledge of L2 listeners.

2.5.2.1 Metacognitive Instruction

Metacognitive instruction is defined by Vandergrift and Goh (2012) as "pedagogical procedures that enable learners to increase awareness of the listening process by developing richer metacognitive knowledge about themselves as listeners, the nature and demands of listening, and strategies for listening" (p.97). In other words, metacognitive instruction refers to "teaching that explicitly elicits and develops learners' knowledge about the listening process" (Goh and Taib, 2006, p. 222). Learners' awareness about listening cannot be observed directly, yet we can still have access to this type of knowledge through asking learners to tell us about it (Goh, 1997).

A variety of methods have been used to implement some form of metacognitive instruction in L2 listening lessons, including the use of checklists (Vandergrift, 2002), listening guided diaries (Goh, 1997, Goh, 1999, Goh and Taib, 2006, Vandergrift, 2003a) group discussions (Liu and Goh, 2006, Cross, 2011) and the use of questionnaires, such as the metacognitive awareness listening questionnaire (MALQ) (O'bryan and Hegelmeimer, 2009, Vandergrift, 2010). All of these

methods are considered indirect ways of developing L2 listening. They allow learners to "step back from real-time listening, examine their listening processes and develop their own thinking about what it takes to be an effective listener" (Vandergrift and Goh, 2009, p. 402). Also, a pedagogical cycle suggested by Vandergrift, and applied in many studies on L2 listening instruction, improves both top-down and bottom-up dimensions of listening, as well as raising the learners' metacognitive awareness of processes which underlie successful L2 listening (ibid: 403).

Goh (2008) proposed a metacognitive instruction framework which consists mainly of metacognitive knowledge and metacognitive strategies. Metacognitive strategies, when compared to cognitive ones, Goh (2005) says, "are less frequently used even by L1 listeners and should be developed to improve control" (p. 78). Goh (2008) explains that although research into metacognitive instruction in listening lessons is "still relatively new," results of this research indicate that L2 learners show some level of metacognitive knowledge about the listening process, and about themselves as L2 listeners (p. 195). Metacognitive instruction influences students' listening performance by altering "the manner in which the learners approach the task of listening and learning to listen" (ibid: 196). Given that listening is a hidden process that takes place in the listeners' heads, metacognitive activities allow learners to uncover these processes.

According to Goh (2005), having the appropriate task knowledge about listening enables learners to plan, monitor and evaluate their listening rather than approaching listening randomly. Strategy knowledge further enables the listeners to use the appropriate strategies to comprehend texts and to generally improve their listening abilities. Person knowledge helps learners attend to problems in general, particularly those they may experience on an individual basis. By a brief review of previous studies in the field of L2 listening, Goh concluded that metacognitive instruction helps learners become less anxious and more motivated. It also has a positive influence on the learners' listening ability. These findings are particularly true for weak listeners, who have been found to benefit more from metacognitive instruction. In fact, a number of studies in the field indicated a casual relationship

between metacognitive instruction and statistically significant improvement in listening ability (Vandergrift and Goh, 2012). I review in the following section some studies that have been conducted particularly in the field of L2 listening instruction with a focus on metacognitive instruction.

2.5.2.2 Studies Related to the Metacognitive Approach

Vandergrift (2002) examined the responses of students of core French in grades 2-6 to three various listening tasks. In his study, 420 students in Canada from 17 different classes completed at least one of the three different listening tasks along with a reflective exercise and a questionnaire. The instruments used in the study, Vandergrift says, helped engage the participants in prediction and evaluation as well as other reflective exercises on the listening process. Qualitative data analysis of the students' responses helped reveal the impact of guided reflection on the participants' awareness of the listening process. Through analysing the answers to the all-class questionnaire, Vandergrift found evidence of the students' metacognitive knowledge, particularly the strategies of planning, monitoring and evaluation. An analysis of the checklists provided further evidence of the participants' strategic knowledge, especially the use of directed attention, self-management, selective attention, advance organization and comprehension monitoring. Vandergrift explains that even though the majority of responses were on planning strategies, the students' responses included instances demonstrating their awareness of the significance of monitoring strategies.

The participants in Vandergrift's study showed an awareness of the purpose, nature, and demands of the listening tasks: task knowledge. However, person knowledge in this study was not as evident as strategic and task knowledge. Vandergrift accounts for this finding as the result of either the participants being too young, or the methodology of the study. Vandergrift explains that by having students become aware of how to plan for a listening task, how to monitor their listening and finally evaluate their performance shifts the learning responsibility from the teacher to the student. He also states that "students need to step back and reflect in order to understand and change learning behaviours" (p.571). Vandergrift suggests further research be done on examining the implicit assumption that an experimental group

using instruments and activities covered in his study would show superior gains in listening comprehension when compared to a control group not exposed to this treatment during the same period of time.

Vandergrift (2003a) conducted another study which followed a pedagogical cycle. This time it was a small scale study involving two groups of university, beginner level students registered in a FSL course. The main aim of the study was to experiment with tasks that could teach students how to listen and determine their effectiveness in terms of facilitating listening comprehension and in raising the participants' awareness of the processes that underlie listening comprehension. Two tasks were designed and used in the lessons in order to teach students how to listen. Task A was used once a week and followed a sequence of top-down activities that trained the students in prediction, monitoring and evaluation. After the first listen, students worked in pairs to compare their predictions and any information they have understood so far. During the second listening, the students were encouraged to check areas of difficulty and to add any new information they heard. After that, a class discussion took place in which the participants had the chance to confirm their comprehension and to share with peers strategies used to achieve comprehension. The students were given the chance to listen for a third time to add any piece of information they missed. The task concluded with an individual personal reflection on the activity.

Task B, on the other hand, followed a bottom-up approach in which the students were encouraged to focus on specific details leading them to establish the sequence of events. The task revolved around a certain text which was simplified into a number of sequential sentences and then randomly ordered. The students first read the statements individually, anticipated the order of events and entered their predictions in the appropriate column. Then, in pairs, they compared their predictions of the sequence of events and were asked to create an alternative version of predictions if necessary. After that the students listened to the text twice and were required to verify their sequence of events. The second listening was followed by a class discussion which gave the students the chance to confirm the actual sequence of events and share strategies used to predict and comprehend the text. The final two

steps resemble those in Task A. The participants were required to complete reflective journals every two weeks. Towards the end of the study, the participants were asked to reflect on Task A and Task B separately. The author analysed the data qualitatively in search for "commonalities relating to task utility and development of listening strategies" (p.432). One area of focus was the usefulness of tasks A and B in facilitating listening comprehension. The students' responses to both tasks A and B were positive. Another area of focus was the development of the participants' awareness of the process of listening, with particular reference to the three types of metacognitive knowledge.

By analysing the students' comments, Vandergrift found a number of major themes. These themes included: the significance of predictions, the usefulness of pair discussions, and how motivating this approach turned out to be. Vandergrift found in the participants' responses evidence of metacognitive knowledge, of all three types: task, person and strategic knowledge. However, there was one area that did not develop in either of the two tasks and that was evaluation. "While there was some evidence of evaluating in the student reflections", Vandergrift says, "a review of the completed task sheets for both tasks revealed that students often did not complete the section where they had to establish goals for the next time" (p. 437-438). Vandergrift concludes by stating that the systematic consciousness-raising the students took part in did in fact help them to be more sensitive to the processes that underlie listening comprehension, and has also helped develop metacognitive knowledge about L2 listening. However, an area that needs to be investigated, he says, is the impact of this systematic approach on listening achievement. One criticism of Vandergrift's pedagogical cycle is the third listening stage. Neither in exams nor in real life do students have the chance to listen to the whole text three times. This stage was avoided by Liu and Goh (2006)who followed the same cycle, as discussed below. Vandergrift's pedagogical cycle was also followed in other studies (e.g. Cross, 2011; Vandergrift & Tafaghoddtari, 2010).

Liu and Goh (2006) conducted an intervention study on 19 Chinese ESL students to raise their metacognitive awareness about the listening process. The participants were enrolled in an intensive English language program in Singapore and were at an

intermediate-level of English proficiency. The study had two phases and was conducted over a period of more than three months. Phase one of the study aimed at investigating the listening strategies available to the participants through the use of a questionnaire as well as a delayed report about interviews the students carried out as part of another course. By the end of this phase, a sharing session was held in which the students benefitted from hearing what their classmates did during listening tasks. This session also aimed at showing the students how rich their knowledge about listening comprehension was and that this knowledge can be applied in many different situations. The previous procedure took place over three weeks, after that the students were taught some new strategies and were given the chance to practise using them.

On the basis of the information gathered in phase one, the authors devised a number of intervention lessons which made up the second phase of the study. They conducted "two process-oriented lessons to sensitize students to the process of L2 listening and to teach them how to listen strategically" (p. 95). The first lesson was a guided listening lesson following the framework suggested by Vandergrift (2003a). The authors introduced a few changes to Vandergrift's framework, one of which was listening twice rather than three times to the text. Also, the focus of the personal reflection was on the participants' perceptions of the strategies they used to comprehend the text rather than on things they would do differently next time. The authors also gave the participants some self-directing listening activities in which the students were provided with a set of questions to guide their listening. These questions, according to the authors, helped the participants manage and regulate their listening comprehension on their own. The students were required to answer questions before and after listening as an aid to pre-listening preparation as well as planning for future activities. They were also asked to evaluate their listening performance in the light of strategy use.

By the end of the intervention, the authors elicited the participants' oral reports. The aim was to uncover any improvements in the participants' metacognitive awareness and strategy use. Analysis of the data gathered in phase one of this study resulted in a number of findings. The authors found that different tasks led to the use of

different strategies. However, the four main metacognitive strategies used by participants were pre-listening preparation, directed attention, selective attention and comprehension monitoring. The problems participants reported facing when listening to texts in the classroom were at lexical and semantic level. There were also a number of other factors which affected their comprehension, including: speed, memory load and attention span. The participants reported positive responses to the guided-listening lessons. When comparing strategies reported in phase one to those reported in phase two of the study, the authors found an increased number in strategies reported. This, according to them, supported the preliminary hypothesis that "process-based discussions and lessons would heighten students' metacognitive awareness and could lead to an increased use of strategies" (pp. 99-100). The conclusion they reached was that this form of metacognitive instruction should be kept a key part of developing learners' listening.

In the same vein, Goh and Taib (2006) carried out a small scale study which covered eight especially designed listening lessons involving ten primary school students. The aim of the study was two-fold: one was to elicit the metacognitive knowledge the participants have about listening in English and second was finding out how helpful a process-based approach to ESL listening would be to them. The focus of the lessons was process-based listening, which included traditional listening exercises, individual student post-listening reflections, and teacher-led discussions focusing on aspects of metacognitive knowledge. The study mainly focused on examining task knowledge, through asking the learners about the factors that influenced their listening, as well as strategy knowledge, by asking them to observe what they have done to understand the listening texts. Avoiding person knowledge intentionally by the authors here is noteworthy.

The lessons followed a particular three-stage sequence: listen and answer, reflect and finally report and discuss. The first stage was a replica of examination conditions where students had to listen and answer multiple-choice questions or write down short answers. Stage two was an individual guided reflection on the listening tasks they had just completed. The final stage was led by the teacher. The students took turn to read their reflections while the others listened and at times

asked some questions. It was the last two stages which led to the elicitation of metacognitive knowledge. Results indicated more reports of factors that influenced listening comprehension than that of strategy use. These factors mainly related to text, task, environment, as well as listener and speaker. The most commonly reported strategies were planning, directed attention, selective attention and inferencing, with planning and inferencing being the most frequent two. Affective strategies were hardly ever mentioned. The pupils' reports were rich in test-taking strategies, such as logical deduction and elimination.

By the end of the lessons, the students were required to reflect individually on their listening ability after taking part in the study. The researchers also assessed the impact of the metacognitive instruction by looking at the pupils' test scores before and after the study. Results indicated increased levels in confidence and metacognitive knowledge, particularly strategy knowledge. There was also an improvement in their listening test scores by the end of the intervention. Pupils with lowest grades in the pre-tests showed the biggest gains in the listening post-test. This is an indication that weaker students benefitted the most from the metacognitive instruction. There were no reports of monitoring and evaluation strategies. Hence, the authors concluded that "these primary school pupils had limited knowledge of comprehension strategies" when compared to adult learners (p. 228). The authors suggest the explicit teaching of the strategies these pupils were lacking, such as prediction, monitoring and evaluation.

Cross (2011) also investigated the effect of metacognitive instruction on the listening comprehension of twenty female, adult, Japanese, advanced level EFL learners. The participants took part in a pedagogical cycle, based on Vandergrift (2007), that engaged them in the sequence of predicting, monitoring, problem identification and evaluation over five listening lessons. The author also integrated an element of explicit group discussions and evaluation of strategies by the learners, as recommended by Goh and Taib (2006). Cross chose four less-skilled and four more-skilled listeners, based on their listening test scores, to compare between and hence investigate the effect of the intervention on the two ability groups. Results indicated that "three of the four less-skilled listeners made noteworthy gains across

the study", whereas only one of the four more-skilled listeners "scored higher in the post-test than the pre-test" (p.413). The latter result is justified by Cross as due to the skilled listeners already having "a comparatively solid level of understanding and orchestration of bottom-up and top-down skills and strategies, so that the impact of participating in the pedagogical cycle made little difference to their comprehension" (p.414). However, the majority of participants in Cross' study did not improve much. The author states that "metacognitive instruction may not be necessarily equally beneficial to all learners in a class" (ibid). He also suggests implementing the pedagogical cycle with other types of listening instruction in order to help improve the listening of students from different ability groups. Yet, the sample in Cross' study is very small, and hence the results cannot be generalized.

Likewise, Vandergrift and Tafaghoddtari (2010) followed the pedagogical cycle of guided practice in listening with three intact university classes over a period of one semester. The authors found that the experimental group outperformed the control group on the final listening comprehension test after receiving metacognitive instruction. They also found that it was the less skilled listeners in the intervention group who showed greater improvement in their listening achievement when compared to their more skilled peers in the same group. Vandergrift and Tafaghoddtari also used the MALQ at three time points of the study to track changes in metacognition about L2 listening. Changes in students' responses to MALQ over the duration of the study along with data from stimulated-recall sessions provided evidence of the development in their L2 metacognitive knowledge following the guided practice lessons.

In brief, results of their study indicate that the approach they followed which sensitised language learners to the processes underlying listening can develop L2 listening. One significant difference between more skilled and less skilled listeners, the authors say, appears to be related to metacognition and that it is the less skilled listeners who can benefit the most from such an approach. An explanation posed for the success of this pedagogical cycle with this group of learners is that these less skilled participants were guided in the process of uncovering the complex listening processes with the help of the teacher and their more successful peers. Also, the

potential effect of administering the MALQ to the control group three times in raising their awareness cannot be marginalized. However, one shortcoming mentioned by the authors was the use of the same process for a rather long period of time. This was reflected by some participants "who commented on the final questionnaire that they were becoming rather bored with the routine" (p.22). Although some researchers advocate informed strategy training, such an approach to listening would focus on merely one or two strategies at a time. In contrast, the focus of the approach in Vandergrift and Tafaghoddtari's study was on "guided practice in the listening process as a whole". The authors state that "the listeners were engaged in processing the language as they would in real-life listening" (p. 19), a claim I do not totally agree with. Nevertheless, the findings of this study corroborate the findings of previous studies which demonstrated that listening instruction focusing on the process, not only the product, has merit and that it is less successful listeners who benefit most from this type of instruction.

Vandergrift (1998) also set out to investigate how second language listeners of French interpret texts through the use of think-aloud protocols. The author compared the listening comprehension protocols of less successful and successful participants at three different levels of language proficiency. Due to its ephemeral nature, listening is of necessity a selective process; hence, whatever is selected to be processed becomes significant in successfully comprehending the text. "What is selected for processing," Vandergrift explains, "may be related to the listener's use of metacognitive strategies" (p. 392). The successful listeners' protocols indicate that comprehension monitoring may be a super-ordinate strategy due to the fact that it directs other metacognitive strategies, including prediction and selective attention, along with cognitive strategies like inferencing and elaboration. In another study, Vandergrift (2003b) found significant differences between more skilled and less skilled L2 French listeners. He found that more skilled listeners used more metacognitive strategies, mainly comprehension monitoring, as opposed to their less skilled peers. This study, he says, "provides further evidence for a model of a more skilled listener who is in control of the listening process, actively engaged in planning for the task and monitoring incoming input for congruence with expectations to construct a mental representation of the text in memory, that is, to

comprehend" (p. 485). He uses the word "orchestra" to illustrate the interaction between cognitive and metacognitive strategies.

Similarly, Goh (1998) attempted to uncover the metacognitive knowledge of 40 Chinese ESL students by examining their listening diaries. She classified the students' responses into task knowledge, person knowledge and strategy knowledge. She further organized the students' responses by devising her own sub-categories of these three types of metacognitive knowledge. Participants in her study reported largely on all three types of knowledge. This led her to conclude that the students showed a high degree of metacognitive awareness. I later adopted the coding scheme she developed in this study to analyse my participants' diary responses. In another study, however, Goh (1999) discussed task knowledge, in particular, in the light of the factors that influence learners' listening comprehension. She used data generated from interviews and learner diaries to uncover the participants' metacognitive awareness about second language listening. Results indicated that the factors which influenced the learners' listening comprehension ordered in terms of frequency of mention were: vocabulary, prior knowledge, speech rate, type of input and speaker's accent. Although the focus of this article was on task knowledge, according to Goh, she included listener characteristics in the table on the participants' task knowledge about the factors which influenced their listening comprehension. Listener factors reveal person knowledge rather than task knowledge, as the definitions of these types of knowledge indicate. This illustrates how fuzzy the boundaries between the three types of metacognitive knowledge are.

In a relevant yet wider scope, Graham (2007) investigated the impact of strategy training in listening on the students' self-efficacy, addressing aspects of motivation which relate to the learners' beliefs in themselves as learners. The study included three groups, a high-scaffolding group which received strategy training along with feedback on their strategy use and on their reflective diaries. The low-scaffolding group, on the other hand, received only strategy training with no feedback or reflective diaries. The third group was the control one, which received no strategy training. The first group made the biggest gains in terms of self-efficacy for listening as well as pre and post listening scores.

Working beyond metacognitive instruction to include strategy training in general, Graham et al. (2011) investigated the development of the listening proficiency as well as strategic behaviour of 15 lower-intermediate learners of French in England over a period of six months. The aim of this study was to argue for the importance of strategy training. The researchers gathered two sets of data at two time points. The first set of data was elicited from a recall protocol which was completed by the subjects after listening to short passages in French. The second set was verbal reports produced by the learners while completing a multiple choice listening task. One of the research questions the study aimed at answering was whether listeners remain in the same listening proficiency group after six months in the absence of listening strategy instruction or not.

Results indicated that the majority of participants remained in the same proficiency band. The results of this study support previous findings which indicate the "individual nature of strategy use and strategy development", as well as "the relative lack of strategy development in the absence of strategy instruction" (p.450). The study also demonstrated the significance of helping students to become in charge of the listening process, which can be developed through some form of strategy instruction. This sense of being in control of the listening process, the authors argue, is characteristic of "highly achieving listeners", and could be developed across learners from all ability groups through reflection. I bring in this study, and the previous one, although they do not relate specifically to metacognitive instruction, for a number of reasons; one, to demonstrate the significance of strategy instruction, in any form, on the development of learners' listening proficiency, as the results showed that learners remained in the same proficiency band with the absence of strategy instruction. Second, this study demonstrates the individual nature of strategy use and development, which is an argument against strategy training programs which focus merely on one or two strategies at a time. Finally, the two studies suggest the significance of reflection in helping learners gain a sense of being in control of their learning.

Metacognitive knowledge, Goh (2005) says, is one type of knowledge that is necessary to achieve listening expertise. However, one limitation of the

metacognitive approach is that it tends to focus rather exclusively on the use of strategies and does not go further to help learners with other forms of learning to listen, either inside or outside the classroom (Goh, 2008). Another limitation that emerges from the results of studies reviewed above is that it is less-skilled listeners who benefit more from metacognitive instruction. Hence, as Cross (2011) concluded, this form of instruction may not be equally helpful to all learners in a language classroom. This supports my argument that to achieve L2 listening expertise, metacognitive instruction alone is not sufficient. As I mentioned previously, and as the definition of expertise illustrates, deliberate practice is what distinguishes experts from novice peers. The element of extended practice, in general, let alone deliberate practice, is mainly what is missing from the studies reviewed above. Hence, my study differs essentially in the integration of deliberate practice in L2 listening lessons. Deliberate practice will be defined in the next part of the review.

2.5.3   The Deliberate Practice Approach

In the past, scientists used to explain expertise as "an orderly progression from novice to intermediate and to expert" (Ericsson, 2006b, p. 688). The most appropriate approach, however, to determine how individuals excel in a field is by studying those who have achieved mastery levels in their areas (Ericsson, 2002). When investigating masters in a variety of fields, Ericsson found that these masters emphasized the role of concentration, motivation and willingness to exert the effort in order to improve their performance (ibid). Consequently, Ericsson and his colleagues spelled out a theory which defines what is involved in effective practice that leads to expertise (Eysenck and Keane, 2010). In Ericsson's theoretical approach to expertise, deliberate practice is considered the main requirement for the attainment of expert performance (ibid). Research evidence points to the significance of deliberate practice as opposed to non-deliberate practice for achievement of high levels of expertise (ibid). In fact, research indicates that "all experiences are not equally helpful and there are qualitative differences between activities loosely referred to as 'practice' in their ability to improve performance" (Plant et al., 2005, p. 98). Many studies conducted in the fields of sports, music and chess have found "a consistent relation between performance level and the quality

and amount of deliberate practice" (Ericsson, 2002, p. 28). The necessity of engaging in specific, domain-related activities to achieve expertise is, hence, now well-established (ibid).

Ericsson et al. (1993) proposed a theoretical framework that explains expert performance as the end result of being engaged in extended deliberate practice. The aim of deliberate practice, in general, is to help improve some aspects of performance effectively, on the path to achieve expert performance. In order to gain further insight into expert performance, Ericsson et al. (1993) asked a group of musicians to keep regular diaries about their current patterns of practice. The aim was to evaluate the length of time as well as regularity of the various types of activities these musicians engaged in, particularly ones that represent deliberate practice. They also conducted a study that compared a group of young expert pianists with another group of amateur pianists. Based on the data gathered, the researchers found large differences between the two groups in regards to the histories of deliberate practice. The diary data revealed that the current amount of practice was 10 times more for the experts than their amateur peers. They also found that steady improvement of performance occurred when the individuals had the motivation to improve performance, were provided with well-defined tasks and subsequently given feedback on their performance and had opportunities for repeated performance. These practice activities were limited in time and evenly distributed across the whole week. "Deliberate practice", a phrase coined by Ericsson et al. (1993), is thus defined as "activities that have been specially designed to improve the current level of performance" (p.367). The central notion of their framework is that "expert performance is the result of an extended process of skill acquisition mediated by large, but not excessive daily amounts of deliberate practice" (ibid: 389).

Ericsson (2006b) says that when individuals are engaged in deliberate practice, they "concentrate on actively trying to go beyond their current abilities," which differs greatly from the effects of mere experience (p. 701). "The requirement for concentration," Ericsson argues, "sets deliberate practice apart from both mindless, routine performance and playful engagement" (ibid: 694). Ericsson et al. (1993)

further explain that the state of diffused attention, such as when being in a state of "flow" while immersed in an enjoyable activity, is "almost antithetical to focused attention required by deliberate practice to maximize feedback and information about corrective action" (p.368). Unlike enjoyable play, deliberate practice is "a highly structured activity, the explicit goal of which is to improve performance" (ibid: 368). In line with the mental demands of learning, "deliberate practice is done in limited periods of intense concentration" (Ericsson, 2002, p. 29). Experts in various fields reported that their ability to maintain the concentration required for deliberate practice was basically what limited their hours of practice (ibid).

The basic assumption behind the framework proposed by Ericsson et al. (1993) is that "the amount of time an individual is engaged in deliberate practice activities is monotonically related to that individual's acquired performance" (p.368). However, Ericsson et al. (1993) explain that engagement in deliberate practice is an "effortful activity", which can take place only for a limited amount of time without leading to "exhaustion", and hence, it is "not inherently motivating" (p. 368). Being engaged in deliberate practice generates no financial rewards, but rather requires costs to cover for access to teachers and training facilities (ibid). Hence, the most cited condition for optimal learning and improvement of performance "concerns the subjects' motivation to attend to the task and exert effort to improve their performance" (ibid: 367). Monitoring performance and assessing improvement seems critical to sustain motivation. That is why the presence of a tutor is a requirement to set tasks, provide guidance and give adequate feedback to the learner. In deliberate practice, Bransford et al. (2000) state, "a student works under a tutor (human or computer based) to rehearse appropriate practices that enhance performance" (p. 166). Ericsson et al. (1993) explain that "in the absence of adequate feedback, efficient learning is impossible and improvement only minimal even for highly motivated subjects" (p.367).

For activities to fall within the domain of deliberate practice, they are supposed to have "a well-defined task with an appropriate level of difficulty for the particular individual, informative feedback, and opportunities for repetition and corrections of errors" (Ericsson, 1996, p. 21). Studies indicate that effective duration of deliberate

practice is estimated at around one hour per day. Yet, when an individual embarks on deliberate practice in a certain domain, the amount of initial duration of weekly practice is rather limited; 10-20 minutes per session, especially in the case of children (ibid: 371). The amount of time spent on tasks is significant, not only at the highest levels of performance, but also on the way to mastering school subjects (Anderson, 2010). A study conducted by Anderson and his colleagues which investigated the reasons behind Asian students' higher achievement in maths found out that they spent twice the amount of time on practising maths (ibid). There is surely some role played by talent in expert performance, yet in line with the deliberate practice approach, "evidence indicates that genius is 90% perspiration and 10% inspiration" (ibid: 263). Based on the literature reviewed above, I summarized the essential elements for deliberate practice in Figure 2.2.
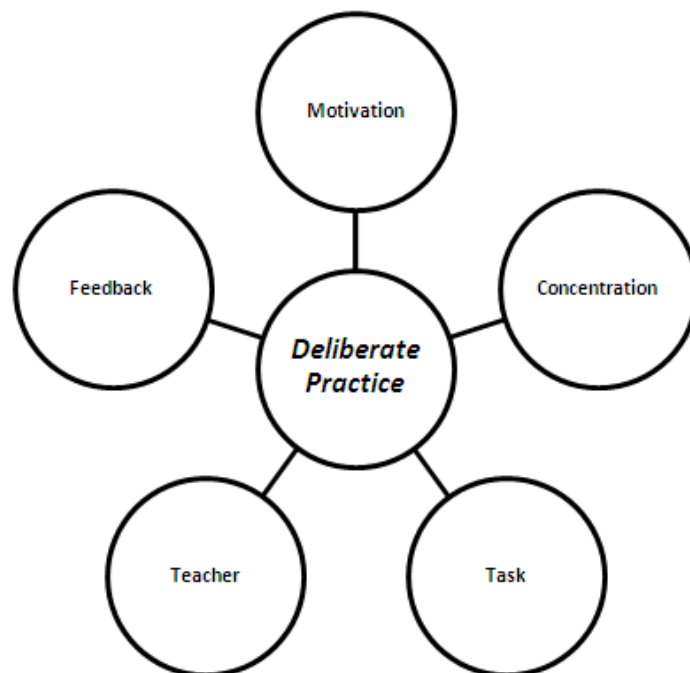
Figure 2.2 Elements of Deliberate Practice (Source: Original)

In light of the skill acquisition theory, Ericsson (2006b) explains why most individuals would develop their performance within months and reach an

automatized stage whereas experts would continue to improve their performance for years and decades. When individuals first engage in learning a certain skill, he says, they have to concentrate on what they are doing in order to reduce the error rate; this refers to the cognitive stage. Then, by gaining more experience, these individuals perform at acceptable levels without having to concentrate as hard as they had to in the first stage and their performance appears smoother and mistakes become increasingly rare; the associative stage. After some time of experience and training, the behaviour of these individuals gradually becomes automated, as they lose the conscious control they started with, and hence the ability to make particular intentional changes is also lost. When a skill reaches an automated stage, Ericsson says, "performance reaches a stable plateau, and no further improvements are observed" (p. 687). On the contrary, the performance of experts keeps on improving as a function of more experience that is joined with deliberate practice. Therefore, "the challenge for aspiring expert performance is to avoid the arrested development associated with automaticity and to acquire cognitive skills to support their continued learning and improvement" (ibid: 696).
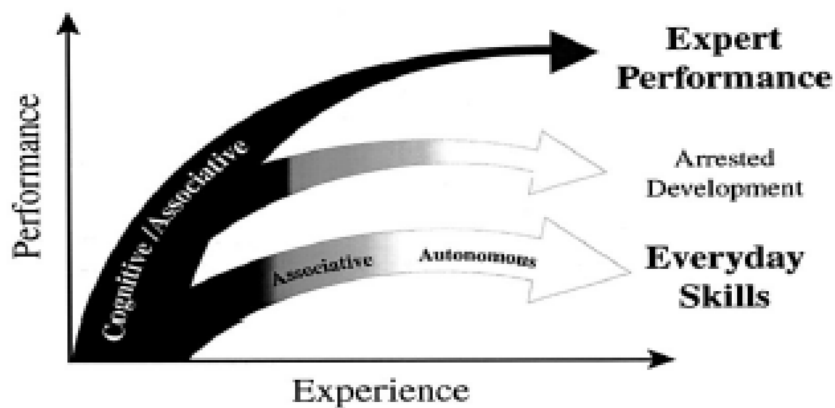
Figure 2.3 Improvement in Expert Performance vs. Everyday Skills /adapted from (Ericsson, 2006b)

Figure 2.3 above clarifies that for experts to be able to continue improving their level of performance, they should remain within the cognitive and associative

stages. For that to happen, they should seek out training opportunities that are above their current level of performance. This, Ericsson (2006b) explains, helps them "counteract automaticity by developing increasingly complex mental representations to attain higher levels of control of their performance" (p. 687). The principal challenge on the road to expertise is inducing changes that are stable and specific, allowing for performance to be gradually improved (ibid).

Reality indicates that expertise relates not just to the amount of knowledge experts have, but also to the way they organize that knowledge and the ability to search efficiently through their knowledge and skills (vanVelzen, 2012). In fact, "the power of metacognitive control can be seen perhaps nowhere better than in the skill of experts" (Kellogg, 1995, p. 212). Hence, metacognition has been shown to develop as expertise increases (Shreve, 2006). By developing metacognitive knowledge, students are expected to be in control of their own learning, since this knowledge provides learners with a tool that helps them analyse new information, evaluate key aspects, and search for ways to improve (ibid). Therefore, metacognitive knowledge is regarded as "a general tool that can support the development of expertise" (ibid: 366). Metacognitive training helps students understand the cognitive processes that are necessary during school learning and how these processes can support the development of expertise (vanVelzen, 2012). Deliberate practice also involves self-reflection after the completion of practice; self-reflection being a key characteristic of metacognition (Baron and Henry, 2010). Hence, deliberate practice is believed to "enhance[s] cognitive resources with respect to *metacognition*" (ibid: 56, italics in original). These illustrations seem to indicate that the two entities of metacognition and expertise go hand-in-hand, with one increasing as the other develops.

The first phase in the framework proposed by Ericsson et al. (1993) begins with introducing the individual to activities in the field and ends with the start of instruction and deliberate practice. The second phase comprises a lengthy period of preparation and ends with "the individual's commitment to pursue activities in the domain on a full-time basis" (p. 369). The final phase continues with full-time commitment for improving performance and ends with either making a professional career in that domain or termination. However, Ericsson et al. (1993) identify three

constraints inherent in the attainment of exceptional performance: resource, effort and motivational constraints. In regards to the resource constraint, time, energy and access to a tutor and training facilities are all resource requirements that are essential for deliberate practice. Further, being engaged in deliberate practice is not inherently motivating, yet motivation is critical to achieve improvements in performance. This poses a motivation constraint on learners. The effort constraint has to do with deliberate practice being "an effortful activity that can be sustained only for a limited time each day during extended periods without leading to exhaustion" (p. 369). The effort constraint can be addressed by "slow, regular increases in amounts of practice that allow for adaptation to increased demands" (p.371).

Eysenck and Keane (2010) mention some of the limitations of the deliberate practice approach, which I see important to state before moving on to the research methodology chapter. Among the limitations is that some evidence indicates that practice is not the only significant factor for the development of expertise. Another limitation is the notion that the role of innate ability in the development of expertise is insignificant, which is unconvincing, they say. Further, a methodological limitation relates to the amount of deliberate practice required. Also, the deliberate practice theory has not fully tackled the issue of motivational factors. It may hold true, however, that people with high innate ability are the ones willing to dedicate long hours of deliberate practice. Deliberate practice is essential to the development of expertise, yet is seldom sufficient (p.497). Therefore I attempted to integrate both metacognitive instruction and deliberate practice to gain benefits and overcome weaknesses in each of the two approaches.

The principles established by research on expert performance and deliberate practice are applicable to a wide range of fields, including music, chess, sports and medicine. Hence, there is empirical evidence to suggest that they may also be applicable to SLA. Deliberate practice is assumed to "reduce the central cognitive load" (Anderson, 2005, p. 303). The cognitive load is rather high in the case of L2 listening, hence, applying deliberate practice is expected to lead to a positive effect on L2 learners' listening level. In deliberate practice, Anderson says, "the learners

are motivated to learn, not just perform" (ibid), which is a major component missing in the comprehension approach.

2.6   Rationale of the Study Based on the Literature

Based on the literature reviewed, I argue that to achieve L2 listening expertise, the three approaches mentioned above should be integrated in any L2 listening course. The comprehension approach is necessary to provide structure to L2 listening instruction by following the three stages of pre-, while, and post-listening. It also provides learners with practice in listening to the target language. In terms of L2 listening, Graham (2006b) states, "practice in itself does not address the issue that learners need to feel a sense of control over their listening, that improvement is possible" (p.178). With its focus on the product, the comprehension approach does not provide learners with guidance on how to deal with the L2 listening input. Hence, the metacognitive approach is necessary for a number of reasons. One is that having a high degree of metacognitive knowledge is believed to have a positive impact on motivation and self-confidence (Goh, 2005). Further, research carried out over the past two decades has come to show that the use of metacognitive strategies is what distinguishes the good language learner (Graham, 2006a). Metacognitive knowledge, according to Goh (2005), is essential to the development of listening expertise in two ways: one is that it helps in the ways learners approach the listening task, and second is that it can help decrease anxiety which is brought about by L2 listening and, consequently, increase motivation and confidence.

L2 listening expertise, according to Goh (2005), is achieved through the accumulation of systemic knowledge, the development of metacognitive knowledge and strategy application. Yet one major limitation that emerges from the results of studies reviewed above (see Section 2.5.2.2.) is that it is less-skilled listeners who benefit more from metacognitive instruction. Therefore, this form of instruction may not be equally helpful to all learners in a language classroom (Cross, 2011). As previously stated, this provides support to my argument that to achieve L2 listening expertise, metacognitive instruction is not sufficient. Deliberate practice, although a major element on the path to expertise, has been overlooked by Goh in her

discussion on L2 listening expertise. Hence, I would argue that L2 listening expertise is achieved, not only via the elements mentioned by Goh above, but also through the application of deliberate practice. Many researchers believe that reaching high levels in any field is, by and large, the outcome of deliberate practice (Baron and Henry, 2010, Ericsson, 2006b). To spend the required time on deliberate practice and to exert the mental effort to achieve improvements, one must be highly motivated (Kellogg, 1995).

Recently, researchers seem to generally accept that a relationship between metacognition and developing expertise does in fact exist (vanVelzen, 2012). This indicates that both deliberate practice and metacognitive knowledge are significant to the development of expertise. By integrating the two elements into L2 listening instruction, I aimed to challenge the current comprehension approach in which learners listen to the tape and give answers to questions without learning how to go about the listening input. Metacognitive instruction provides the L2 listeners with guidance on planning, monitoring and evaluation. It also helps the learners be in control of their learning, and hence increase motivation and confidence. Metacognitive instruction consequently leads students to have more control over their learning and will be "more capable of regulating" it (Goh, 1998, p.47). Deliberate practice, on the other hand, motivates learners to move beyond their current level of performance, by exerting the required mental effort.

 Developing L2 listening expertise paves the way to language development in general, as Field (2008a) explains "listening competence has a critical effect upon learner motivation" (p.335). The development of listening expertise, Goh (2005) argues, "is a gradual process" (p.78). Thus, this study was designed to consist of two phases in order to achieve an element of gradual movement. The first phase was concerned with metacognitive instruction whereas the second one dealt with deliberate practice in EFL listening. I attempted to integrate these two phases into the listening sessions of EFL learners and, hence, investigate the impact of each phase on the participants' metacognitive knowledge and L2 listening ability. There is, Goh (2005) says, "a modest but growing body of work that examines the features of listening expertise" (p.79). However, most of the studies to date have been

descriptive in nature; "they document characteristics of listening expertise of learners from different learning and cultural contexts" (ibid). The present study differs from previous ones in the field in that it aimed at finding a way to develop listening expertise, rather than describing what distinguishes L2 expert listeners from their novice peers.

Deliberate practice is a learner-centred approach, since it is in the hands of the learners themselves to aim at improving their current level of performance and exert the required effort, motivation and concentration. The diligence, concentration and effort required for deliberate practice yields many significant cognitive benefits. The teacher under this approach acts merely as a coach, providing suitable tasks, monitoring performance, giving feedback and allowing for repeated performance. To my knowledge, the application of deliberate practice in EFL listening sessions is the first of its kind. To conclude, Ortega (2009) states that deliberate practice "is a concept that is very much relevant to L2 learning but has not made it into SLA yet!" (p. 108). This study took the initiative to explore the impact of deliberate practice on L2 listening, which is at the core of second language acquisition.

2.7   Aims and Research Questions

I adopted the basic principles of deliberate practice suggested in the literature and aimed at investigating whether being engaged in this kind of practice has an impact on the participants' EFL listening ability, or not. Furthermore, this study aimed at investigating the impact of deliberate practice on the participants' level of metacognitive knowledge. The study, as explained in further detail in Chapter 3, was designed in two phases: a metacognitive instruction phase and a deliberate practice phase. The aim of phase one was two-fold. One was to investigate the effect metacognitive instruction has on the participants' listening ability as well as metacognitive knowledge. Second, it was planned to serve as a lead in to the second phase of the study. As explained in the literature review on deliberate practice, the most cited condition for improvement is the participants' motivation to practise. As the literature reviewed above indicated, metacognitive instruction has shown to have

a positive influence on students' motivation, thus this phase was planned to take place before the deliberate practice one.

The study aimed at specifically answering the following research questions:

1. What impact did the metacognitive instruction phase have on the experimental group's level of :
   a. Metacognitive knowledge
   b. EFL listening ability?
2. What impact did the deliberate practice phase have on the experimental group's level of:
   a. Metacognitive knowledge
   b. EFL listening ability?
3. How did the participants in the experimental group develop over the course of the study compared to students in the comparison group in terms of:
   a. Metacognitive knowledge
   b. EFL listening ability?
4. Is there a relationship between the metacognitive knowledge and EFL listening ability of the participants?

The approach to L2 listening instruction I propose in this study is definitely not the solution for all language learners, especially ones who lack the required motivation. Yet, it seems promising for second/foreign language major students, similar to the sample in this study, and to students doing a language course who are expected to be motivated to undertake the pains of deliberate practice. The term listening used in this study refers to one-way listening, as it is the norm in most listening instruction classes (Vandergrift and Goh, 2012). Also, the terms L2 and EFL listening are used interchangeably.

2.8 Summary

In this chapter, I reviewed the literature relevant to my study. The review fell into four sections: one on listening comprehension in general, the following on theories of listening processes, and then a section on theories about learning to listen. The final part of the review presented the term L2 listening expertise and discussed the

three approaches which I argued should be kept part of L2 listening instruction classes. The aim of this chapter was to situate my study within the current research on L2 listening. I concluded the chapter with the rationale of the study based on the literature review, followed by aims and research questions. In the following chapter, I present the research methodology for my research.

Chapter 3 Research Methodology

3.1 Introduction

In the previous chapter, I presented a review of relevant literature and situated my study within the current research on L2 listening. The previous chapter ended with the rationale of the study as well as the research questions the study aims to answer. This study, as stated previously, suggests a new way of developing the listening proficiency of L2 students by incorporating both metacognitive instruction and deliberate practice into listening lessons. The main aim of the study was to explore the impact of both metacognitive instruction and deliberate practice on the participants' EFL listening level and metacognitive knowledge. The study aimed specifically at answering the following research questions:

1. What impact did the metacognitive instruction phase have on the experimental group's level of :
   a. Metacognitive knowledge
   b. EFL listening ability?
2. What impact did the deliberate practice phase have on the experimental group's level of:
   a. Metacognitive knowledge
   b. EFL listening ability?
3. How did the participants in the experimental group develop over the course of the study compared to students in the comparison group in terms of:
   a. Metacognitive knowledge
   b. EFL listening ability?
4. Is there a relationship between the metacognitive knowledge and EFL listening ability of the participants?

The present chapter, however, gives a detailed account of the research design of this study. I started with a recap of the research aims and questions above. In the following sections, I discuss the major elements of the research methodology, including the research paradigm, ethical considerations, research design, the sample, data collection instruments and finally data generation procedures.

Two rather discouraging realities regarding L2 listening research are worthy of notice at the start of this chapter. One is that, until the present time, "research on listening in applied linguistics is limited," and that numerous research questions in the area of L2 listening "still remain" (Vandergrift, 2010, p. 160). It is, Vandergrift says, "the least understood and the most difficult to investigate" among the four basic language skills (ibid). L2 listening is in fact a complex, yet under-researched skill (Graham, 2003). The difficulty of researching listening, given its ephemeral nature, is a major reason for this lack of research interest (Flowerdew and Miller, 2010). Further, as Lynch (2002) explains, "not the least of the problems facing the listening researcher is the fact that listening is unobservable" (p. 41). Hence, researching a construct as complex and implicit as listening is promising to be full of uncertainties. Conducting effective research into L2 listening is in itself a complex issue (Lynch, 2009). Yet, research in this area is an attempt to resolve such uncertainties and to find answers to questions that remain.

The complexity underlying the process of listening comprehension is also well-established in the literature, and has led researchers to consider it "the most difficult skill to learn out the four skills" (Lynch, 2006, p. 29). As a consequence, it is the task of teachers and researchers alike to find out ways to help L2 learners overcome these difficulties. My study, therefore, attempted to investigate the effects of a proposed method for developing learners' L2 listening abilities.

To my knowledge, no research to date has attempted to investigate the impact deliberate practice has on EFL learners' listening proficiency. Hence, this research was of an exploratory nature; it attempted to explore whether deliberate practice helps in improving the participants' listening ability or not. The study also attempted to investigate the impact of metacognitive instruction on both metacognitive knowledge and listening ability of tertiary level Saudi students. This has been previously investigated in other research contexts, but, as far as I am aware, for the first time in a Saudi context.

3.2   Research Paradigm

One of the problems that confront researchers in the field of language learning is that the efforts learners make to learn and use a language are mainly unseen, taking place in the learners' minds (Nunan, 1992). The difficulty of investigating listening and the complexity of this construct is well-established, calling for a mix of methods to deal with these major issues. In fact, many researchers argue that mixing methods is indispensable in classroom research, due to its highly complex nature (Dörnyei, 2007). A mixed methods approach helps, to use Dörnyei's analogy, put "flesh on the bones" (ibid: 45). The bones in the case of mixed methods research is data driven from the quantitative phase of the study, whereas the flesh is data resulting from the qualitative part of it. Based on the aforementioned reasons, along with the type of data required to answer the research questions, my study followed a mixed methods design.

The term mixed-methods research is used to refer to the combination of both qualitative and quantitative methods within one single study (Dörnyei, 2007). It is defined as a type of research that combines the elements of qualitative and quantitative approaches in a single study (Johnson et al., 2007 , p. 123). Mixed methods research is considered as the third major research paradigm which helps bridge the division between qualitative and quantitative approaches (Johnson and Christensen, 2004, Johnson et al., 2007). The main philosophy that supports mixed methods research is pragmatism (ibid), which suggests that the most useful approach to any investigation is actually "what works" to answer the research questions (Cohen et al., 2011). In other words, the bottom-line is that "research approaches should be mixed in ways that offer the best opportunities for answering important research questions" (Johnson and Christensen, 2004, p. 16). Mixed methods research is in fact "an attempt to legitimate the use of multiple approaches in answering research questions, rather than restricting or constraining researchers' choice" (ibid: 17).

The fundamental principle behind mixed methods research, Johnson and Christensen (2004) say, is that multiple datasets are collected through the use of different

strategies, methods and approaches in a certain way that the combination would result in "complementary strengths and non-overlapping weaknesses" (p. 18). In many instances, the goal of mixed research is expanding understanding, rather than searching for corroboration (ibid). For a study to be regarded a mixed-method design "the findings must be mixed or integrated at some point" (ibid: 20). Johnson and Christensen (2004) compare the act of mixing methods in research to the use of "several flawed fishing nets" together as an attempt to come up with a new stronger net which functions well in spite of the problems existing in each net individually (p.162). This analogy entails that the use of more than one instrument to collect data for a single study helps overcome the shortcomings present in each single method. However, even though mixing methods is regarded as "an excellent way to conduct high-quality research", it has to be done skilfully to ensure that the methods complement the strengths of one another and that their weaknesses do not overlap (ibid).

Researchers justify the use of various research methods by stating that "one method alone cannot provide adequate support" (Mackey and Gass, 2005, p. 181). Evidence, Johnson and Christensen (2004) say, is "often greater when you employ a logical mixing strategy" (p. 163). Further, using a mixed-methods approach is helpful in understanding complex constructs, such as classrooms, because it "can broaden the scope of the investigation and enrich the researcher's ability to draw conclusions" (Dörnyei, 2007, p. 186). A mixed-methods approach also leads to a multi-level analysis (ibid). Dörnyei justifies this point by saying that "words can be used to add meaning to numbers and numbers can be used to add precision to words" (p.45), hence the methods complement one another. Once the findings support and confirm one another, the validity of the research results is improved (ibid). Finally, studies that are based on mixed methods, as opposed to "mono-method" studies, are more likely to appeal to a larger audience, including second language teachers, who are not researchers themselves but could still benefit from the qualitative side of the study (ibid).

The design of this study was a QUAN + qual, mixed-method one; the quantitative data was given more dominance and the two were conducted concurrently, rather

than sequentially. This design is useful for embedding a qualitative element within a primarily quantitative study (Dörnyei, 2007). In my study, the qualitative data was used to uncover the metacognitive knowledge of participants in the experimental group in more detail and evaluate the intervention from their viewpoint. Quantitative data was given more dominance because it was used to track the development of the experimental group, and to compare the results of the two groups. In a concurrent design the quantitative and qualitative methods are used separately and in a parallel way; one method does not influence the operationalization of the other, and the results are integrated in the interpretation stage (ibid). The major purpose of the concurrent design is broadening the research perspective and consequently reaching a more general picture of the issue investigated or finding out how various findings support or complement each other (ibid). I collected quantitative and qualitative data sets concurrently and analysed them separately. Then I mixed the two databases during the interpretation stage. To conclude, researchers investigating "a construct as implicit as listening" should, Vandergrift (2010) suggests, attempt to use a mixed methods approach to gather "convergent data" (p.168). Before presenting the research design, I establish the ethical considerations I took into account when designing the study. This is the focus of the next section.

3.3   Ethical Considerations

Ethical issues arise from all forms of research, whether it is qualitative, quantitative or mixed methods due to the fact that research dealing with human participants is an intrusion into their lives (Cohen et al., 2011, Punch, 2009). The initial step I took to ensure following ethical standards was obtaining ethical approval to conduct my research from the AREA Faculty Research Ethics Committee at the University of Leeds (see Appendix B). As part of the process of applying for ethical approval, the significance of a number of ethical issues, in particular, became apparent to me. I discuss these issues below.

3.3.1 Access and Acceptance

Access and acceptance means "access to the institution or organization where the research is to be conducted, and acceptance by those whose permission one needs before embarking on the task" (Cohen et al., 2011, p. 81). Access issues usually involve different levels of approval, the first stage of which is gaining official permission to conduct the research on the target site. Being a member of staff at COLT, I considered this as the target site due to the likelihood of gaining access and acceptance easily. I wrote a formal letter to my sponsors, the Saudi Cultural Bureau in the UK, explaining the purpose of the study, along with details on the nature, data collection methods, the possible benefits of this research as well as the number of sessions and procedures followed in each. I also had to attach a letter from my supervisors which stated that they approved the study and outlined the aims of the research. My sponsors contacted KSU on my behalf, who gave me the official permission to conduct the study at COLT (see Appendix C for letter).

On a lower level, I contacted the Listening 4 course teacher, via one of my colleagues on site, who agreed to cooperate in recruiting participants for the study. Cohen et al. (2011) state "achieving goodwill and cooperation is especially important where the proposed research extends over a period of time" (p. 82), which was the case in my study. Hence, I had to ensure the cooperation of the course teacher in the first place. Being a member of staff at COLT facilitated access and acceptance issues. However, I entered the field as an overt researcher, and this was made clear to students in the recruitment and informed consent letters. Although I was a member of staff at COLT, the participants did not know me previously as I have been away doing my graduate studies as a full-time student in the UK.

3.3.2 Informed Consent

Informed consent is regarded as the most fundamental ethical principle involved (Burns, 2000), the basic principle behind it being "the subject's right to freedom and self-determination" (Cohen et al., 2011, p. 77). Self-determination entails that the participants are the ones who have the right to decide for themselves whether to be involved in the research or not, by weighing up the benefits and potential risks

(ibid). According to Cohen et al. (2011), the concept of informed consent involves four main elements: competence, voluntarism, full information, and comprehension (p. 78). Competence means that individuals who are responsible and mature will be able to take the right decisions based on receiving relevant information about the research. Voluntarism entails that participants are given the right to freely choose whether to be involved in the research or not. Full information means that participants are fully informed about the consequences of taking part in the research. Finally, comprehension entails that the participants understand the nature of the research fully, including potential risks. The presence of these four elements, in particular, ensures that the "subjects' rights will have been given appropriate consideration" (ibid).

The participants I approached were all mature and responsible enough to decide for themselves whether to be involved in the research or not. The informed consent letter I gave them to sign before commencing the study contained full information, including the length of the study and made clear that the sessions would be taking place in their free time during university hours. The letter explained the nature and purpose of the study and the consequences of taking part in it. They were also provided with my contact details for further inquiries. The participants were reassured of anonymity, confidentiality, right to withdraw at any point in the study and that the data will be only used for research purposes (see Appendix D for informed consent letter). The informed consent letter was translated into the participants' native language, as advised in the literature (Mackey and Gass, 2005), and purposefully avoided jargon to make it as evident as possible to the participants and, hence, ensure comprehension. I also debriefed the students in the first session I met with them. Participants were also informed of their right to inquire about their grades on the TOEFL tests by the end of the study.

Informed consent implies "voluntary agreement to participate in a study about which the potential subject has enough information and understands enough to make an informed decision" (Mackey and Gass, 2005, p. 23). One problem with voluntary participation, however, is that it leads to non-random samples (Burns, 2000). Nevertheless, voluntary participation was an advantage in my study since taking part

in the listening sessions required commitment on behalf of the students. Further, the most cited condition for deliberate practice, as mentioned previously, is motivation, which is likely to happen when students volunteer to be involved. Informed consent ensures, alongside voluntary participation, the protection of participants' identities as well as their privacy, and not being deceived about the nature of the study (Rallis and Rossman, 2009).

3.3.3   Right to Privacy: Anonymity & Confidentiality

Anonymity means that participants remain unidentified; nameless (Berg, 2007). In essence, anonymity entails that "information provided by participants should in no way reveal their identity" (Cohen et al., 2011, p. 91). Not using the names of participants or any other personal identification means are the principal way to ensure anonymity (ibid). In my case, the data was analysed anonymously. I used numbers to identify test and questionnaire results, rather than names, which gives no indication of the students. The use of numbers guarantees privacy to the participant, regardless of the sensitivity of the information provided (ibid). As for the qualitative data, I used pseudonyms to ensure anonymity.

Another way to protect the participants' right to privacy is via "the promise of confidentiality" (Cohen et al., 2011, p. 92). Confidentiality means "not disclosing information from a participant in any way that might identify that individual or that might enable the individual to be traced" (ibid). In other words, even though the researchers can identify the individuals who provided the information, they avoid discussing this with others and do not make the information public. The researchers are expected to make this position clear to the participants at the data collection stage. There is some overlap between anonymity and confidentiality, particularly in the means to ensure each. For example, deleting names or any other means of identification can be applied to ensure both confidentiality and anonymity.

3.4 Research Design

I followed in this study a quasi-experimental, pre-test post-test, non-equivalent group design. This is considered as one of the most commonly used quasi-experimental designs in educational research (Cohen et al., 2011). It was not possible to randomly assign participants to control and treatment groups mainly because of ethical issues, since, as mentioned above, participation in the intervention had to be done on a voluntary basis. As a result, the study is not a true experiment. However, random assignment of students by researchers is seldom, if ever, possible in most educational settings (Dörnyei, 2007). Although there was no random assignment, the two groups were comparable in many respects. Students in both groups were from the same cohort, shared the same L1, were all females and of similar ages. Statistical measures were also used to ensure that, prior to the intervention, the two groups were at similar levels in terms of listening ability and metacognitive knowledge (see Section 4.2). Hence, even though it was not a true experiment, the study had the features of a typical quasi-experiment, in that I tried to make the two groups as comparable as possible.

Developing L2 listening expertise, as mentioned previously, is reached gradually (see Section 2.5). Due to the limited scope of this study, however, I was not able to fully adopt the framework put forward by Ericsson et al. (1993) (see Section 2.5.3). I was still able to follow some of the phases suggested which help to achieve the aim of improving the participants' EFL listening ability. The awareness-raising phase introduced in my study played the role of instruction and activities in the domain. This was hypothesized to equip the participants with the motivation required for commitment to deliberate practice. Another area of divergence from the deliberate practice theoretical framework was the amount of time dedicated to deliberate practice. The 10-year span of engaging in deliberate practice would be impossible to achieve in a study similar to mine, with limited time and resources. However, engaging students' in deliberate practice was hoped to put them on the right track to excellence in performance. Segalowitz (2003) states that even short periods of time spent on well-organized practice can in fact lead to improvements in an L2 skill.

Thus, this study was designed to consist of two phases to achieve an element of gradual movement. The first phase was concerned with metacognitive instruction whereas the second one was on deliberate practice in EFL listening. Prior to the start of the sessions, the TOEFL test and MALQ were administered as pre-tests to both comparison and experimental groups. The experimental group then took part in the two phases of the intervention; the comparison group, on the other hand, were not involved in any of the sessions over and above the normal Listening 4 classes. As was the case for Goh and Taib (2006), due to administrative constraints, effects of normal classroom instruction could not be eliminated.

The comparison group have exactly the same material in their Listening 4 classes as the experimental group. No data were collected about their listening experiences outside the classroom but based on my experience as a teacher in this context and informal discussions with both teachers and the students, it appears that their out of the class listening parallel that of the experimental group as described in Figure 4.1.

The fact that the experimental group received additional listening experiences was not an ideal feature of the research design. However, the issue is comparable to other studies. For example, Goh and Taib's study was based on an intervention involving one group of learners but without a comparison group. Additionally, there is a theoretical issue related to the importance of motivation in deliberate practice. In deliberate practice, the experimental group have to be well motivated and it would be ethically problematic to deny the opportunities of DP to all students who wanted the extra practice. So it is often difficult to avoid the experimental group in deliberate practice research receiving more attention than the comparison group.

3.4.1 Phase One

I based the design of phase one, the metacognitive instruction phase, on some of the studies reviewed in Section 2.5.2.2. Phase one took place over a period of three one-hour sessions. Details of each of these sessions are given in Section 3.7.2. However, I will shed light in this part on the purpose of this phase. The use of the MALQ as a pre-test served as the first step in the metacognitive awareness-raising process. Goh

(2008) states that "besides being a research instrument, the MALQ can also be used as a teaching tool for raising learners' awareness about L2 listening" (p. 206). Although used in this study mainly as a research instrument to track development in metacognitive knowledge, the effect the MALQ had on the participants cannot be overlooked. Further details on this phase are given under Section 3.7.2.1.

The aim of phase one was two-fold. One was to investigate the effect of metacognitive instruction on the participants' listening ability as well as metacognitive knowledge. Second, it was expected to serve as a lead-in to the second phase of the study: the deliberate practice phase. Metacognitive instruction has a motivational consequence in that it is intended to help students "feel *empowered* to be successful and thereby invest effort in relevant and challenging tasks" (Paris and Winograd, 1990, p. 43, italics in original). As explained in the literature review on deliberate practice, the most cited condition for improvement is the participant's motivation to practise. These metacognitive processes, according to Goh (2008), "not only raise learners' awareness about strategy use, but also offer much needed scaffolding while learners are working with listening texts" (p. 192). That is why this phase was planned to prepare the participants for the second phase. According to results of other studies in the field, I expected this phase to have a positive impact on the participants' metacognitive knowledge. Developing metacognitive knowledge consequently leads students to have more control over their learning and will be "more capable of regulating" it (Goh, 1998, p. 47). By the end of this phase, both the TOEFL listening test and the MALQ were administered for the second time to evaluate any impact this phase had on the participants' listening ability and their metacognitive knowledge respectively.

3.4.2 Phase Two

Having a high degree of metacognitive knowledge, which is crucial for the development of L2 listening expertise, is believed to have a positive impact on motivation and self-confidence (Goh, 2005). Johnson (2005) suggests a common instructional paradigm for developing expertise. According to him, to develop expertise one has to identify two comparable groups of relative novices. One group,

which is the experimental group, is trained using a chosen method to be investigated, while the second group acts as a control. After some time, the two groups are tested to determine whether the experimental group has gained from the training or not. However, a lot of work remains to be done to decide whether and how expertise can actually be taught (ibid). The application of deliberate practice in an L2 listening class, though it is crucial to listening development, may not be very apparent to the outside observer because many of the procedures in class are the same as they would be in a conventional listening class. The difference largely relates to the listeners' internal psychological processes.

As an attempt in this regard, I based the training in this phase on the elements of deliberate practice identified in the literature (see Figure 2.2.). In phase two, participants listened to the text first and took notes. They listened again and then were asked to give a summary of the text. If the text was a conversation or a short discussion, then they had to complete the task rather than write a summary. By the end of each task, however, they had to write in their guided listening diaries. Table 3.1. below illustrates the elements of deliberate practice and how I attempted to achieve them in the training sessions of phase two.

DP Elements	Applications
1. Concentration	▪ Reinforcing the significance of concentration at the start of each session
2. Motivation	▪ Voluntary participation in the study ▪ Increase in metacognitive knowledge (due to 1st phase) ▪ Reinforcing significance of motivation at the start of each session
3. Tutor	▪ I was present in all sessions
4. Task	▪ Tasks from published material
5. Feedback	▪ Diaries ▪ Group discussions ▪ Feedback on summaries
6. Repeated performance	▪ Listening to a text twice (for lectures) ▪ 2-3 listening texts per session

Table 3.1 DP Elements & their Applications in the Context of Listening

More details of each of the two phases are given in Section 3.7.2.

3.5 Sample

The students who participated in this study were from the institution I work at, and they all met the criterion of being enrolled on a Listening 4 course. Hence, the sampling procedure was a convenience sampling one, which according to Dörnyei (2007), is "the most common sample type in L2 research" (p.98). A convenience sample is "one that is simply available to the researcher by virtue of its accessibility" (Bryman, 2012, p. 201). One major example of convenience samples is "captive audiences such as students in the researcher's own institution" (Dörnyei and Csizér, 2012, p. 81). Yet, convenience samples are seldom, if ever, completely based on convenience, as they are expected to meet a certain criteria besides being relatively easy to access (ibid). This form of sampling is apparently used in many other studies in the field, e.g. (Goh, 1998).

 In my study, participants from both groups were enrolled on a Listening 4 course, hence they were from the same cohort. The number of students registered on the Listening 4 course was 124, therefore the sample made up approximately 34% of the cohort. I purposefully asked for volunteers from students enrolled on Listening 4 course because I expected students who reached this course, which was the last listening course on the program, to be at a better position in terms of listening ability. As previously mentioned, Goh (2005) argues that L2 listening expertise is developed through both systemic knowledge, including phonology, semantics, grammar, pragmatics and discourse, as well as metacognitive knowledge. The principle behind asking for volunteers from Level Four was that they would be better than lower levels in terms of systemic knowledge. That way, the basic grounds for L2 listening practice would be established in order to reap the benefits of deliberate practice.

The students who took part in this study were 42 female, undergraduate students from the English department at COLT at KSU in Riyadh. Participants shared the same L1, Arabic. This was an advantage for me as a researcher since I was able to make use of it, especially in terms of translating the instruments. The participants were around 19-20 years old and with an average of 7 years learning English. There were 21 students in the experimental group, initially, and 21 in the comparison group. The use of small samples is not uncommon in the field, e.g. Goh and Taib (2006) 10 students, Cross (2011) 20 students, Liu and Goh (2006) 19 students, O'bryan and Hegelmeimer (2009) 4 students, and Cross (2009) 15 students. This is also similar to studies reviewed by Berne (2004), in which researchers followed procedures that obliged them to use fewer than 25 participants (p.525). The realization now is that "large sample sizes are not a necessary requirement for all research projects", as there seems to be a greater understanding of the significance of small-scale studies in fields like education (Punch, 2009, p. 42). However, even with the small sample in this study, data analysis revealed that the results were normally distributed, and the sample presented more than 10% of the population, which according to Dörnyei and Csizér (2012), is "the magic sampling fraction" (p. 82).

In regards to how large the sample should be, Dörnyei (2007) suggests "in experimental procedures at least 15 participants in each group" (p.99). Further, since the target population is relatively homogenous, being all female, Saudi students in the English department at COLT, variation is expected to be less and hence the sample may be smaller (Bryman, 2012). Random assignment was not possible, as previously mentioned. Students who volunteered to take part in the intervention sessions made up the experimental group. After gaining official permission to conduct the study at COLT, I recruited for participation in the study through one of my colleagues there who approached Listening 4 students with a letter explaining the study and the consequences of taking part in it. The letter was written in the students' L1; Arabic, to avoid any misunderstandings. The recruitment letter was also double-checked by another colleague who was doing a PhD in the UK and was competent in both English and Arabic. I had 26 volunteers initially, but since it had been decided to meet in small groups during the students' free times, only 21 could fit in the available free slots. I arranged with the volunteers to meet in small groups during their free contact hours. The groups ranged from 2-10 students, which was an advantage especially for phase two of the study due to the emphasis deliberate practice places on providing feedback to students.

3.6 Data Collection Instruments

Among the problems related to researching listening is "how to actually go about undertaking research when the information was 'inside-the-head'" (Flowerdew and Miller, 2010, p. 160). As stated previously, the complexities of learning to listen as well as researching L2 listening necessitate using a mixed methods approach to generate data. As a matter of fact, this is in line with other studies in the field of L2 listening. For example, Liu and Goh (2006) used a questionnaire followed by delayed reports to investigate the listening strategies used by their participants. Also, Goh and Taib (2006) used individual student reflections as well as listening test scores to assess the impact of metacognitive instruction. In another study, Goh and Hu (2013) collected data by using MALQ and a listening test to understand the relationship between metacognitive awareness and listening performance. Vandergrift (2010) also conducted a mixed-methods study to investigate the effects

of a metacognitive approach to teaching L2 listening. The instruments they used included a listening test as well as the MALQ. A study conducted on listening strategy instruction by Graham and Macaro (2008) also used think-aloud protocols and tests of listening proficiency to gather data.

Vandergrift et al. (2006) state that the most common instruments used to elicit learners' metacognitive knowledge about listening are diaries, interviews, and questionnaires. The main instruments I used in this study, however, included a listening test, questionnaires and guided listening diaries. The listening test and MALQ questionnaire were used to track development of the experimental group over the course of the intervention. The same instruments were used to compare results of the experimental group against those of the comparison group. The guided listening diaries, on the other hand, were used in both phases of the study to uncover the metacognitive knowledge of participants in the experimental group. I also used an open-ended questionnaire with the experimental group at the end of each of the two phases for specific purposes. The fact that listening is a complex, on-line process entails that interviews would not have been a suitable instrument to uncover the metacognitive knowledge of the participants. The use of interviews would have also limited the number of participants involved, whereas diaries and questionnaires were used with the whole sample. Think-aloud protocols have also been used in many studies in the field, e.g. O'Malley et al. (1989). Yet, the principle of stopping listeners during a "highly recursive process," Macaro et al. (2007) state, "does raise validity questions" (p. 167).

Questionnaires and diaries, on the other hand, are considered introspective methods which "encourage learners to communicate their internal processing and perspectives about language learning experiences" (Mackey and Gass, 2005, p. 201). They are, Vandergrift (2010) states, "process-oriented methodologies", which help in providing "potentially useful insights into the cognitive processes underlying listening comprehension" (p. 165). Researchers in the field believe that having students reflect on the process of listening helps to raise their awareness of this process and understand the strategies involved in successful completion of L2 listening tasks (Vandergrift, 2002). Thus, it becomes evident that the use of

questionnaires and diaries in the two phases of this study work in harmony and in the same vein, raising the participants' awareness of the listening processes. Both questionnaires and diaries, according to Anderson (2008), are pedagogical tools "to help develop metacognition" (p. 105). Therefore, the questionnaire and diaries function as both research and learning tools at the same time. The only way I could measure achievement in listening ability, however, was via a listening test. The following parts discuss the use of each of these three instruments in further details.

3.6.1 Questionnaires

Questionnaires are said to have originated in the fields of philosophy and psychology as an introspective method which aims at tapping the respondents' "reflections on their own mental processes and behaviours" (Gass and Mackey, 2007, p. 50). However, Wagner (2010) explains that this type of survey research is a very powerful tool that has also played an essential role in the field of applied linguistics for a long time. Questionnaires have been used in the area of second language research to measure a wide variety of questions, such as learners' beliefs and attitudes, which are not readily available from production data; data produced completely by participants, without the help of researcher prompts (Johnson and Christensen, 2004, Mackey and Gass, 2005, Wagner, 2010). Questionnaires can be used to gain numerical data as well as qualitative insights depending on the way they are formed. Hence, the use of questionnaires can cater for a wide variety of research types (Gass and Mackey, 2007).

A questionnaire, Gass and Mackey (2007) state, is a form of "constrained data", which is data resulting from "prompted production" (p.50). When using a questionnaire, every participant is expected to answer the same set of questions or statements. Hence, as Brown (2001) says, the data produced from a particular questionnaire are "more likely to be standardized, uniform, and consistent across subjects" (p. 77). However, the simplicity of constructing questionnaires is considered to be their main strength and, ironically, at the same time their main weakness (Dörnyei, 2003). Well-constructed questionnaires lead to data that can be processed quickly and relatively straightforwardly. Yet, it is also very easy to

generate unreliable and invalid data through the use of ill-constructed questionnaires (ibid).

Researchers in the field believe that questionnaires are a versatile tool and make an instrument which is exceptionally efficient in terms of researcher time, effort and finances; it is in fact a practical and economical instrument (Dörnyei, 2003, Johnson and Christensen, 2004, Mackey and Gass, 2005). Efficiency is demonstrated in the large number of participants a questionnaire can be easily administered to, the objectivity of scoring procedures, and the simplicity of data analysis especially with the use of an appropriate computer software (Dörnyei, 2007, Wagner, 2010). Another advantage is that answers to questionnaires are value-neutral; questionnaires do not have good or bad answers, rather they seek to find information about the participants in a "non-evaluative manner" (Dörnyei, 2003, p. 7). The use of questionnaires helps obtain longitudinal information from learners due to the fact that they can be easily used repeatedly and the outcomes can be directly compared (Gass and Mackey, 2007). Questionnaires are also a better means of gathering information on "sensitive issues" due to the fact that "anonymity can be built" into them (Brown, 2001, p. 77).

However, the weaknesses of questionnaires as a data collection instrument are, Wagner (2010) says, "readily apparent" (p. 26). One is that the data resulting from questionnaires is rather superficial and that the description of the subject matter is quite thin (ibid; Dörnyei, 2007). In fact, they rarely provide a comprehensive view of the complexities of an individual context (Mackey and Gass, 2005). The studies mentioned at the start of Section 3.6. indicate that researchers in the field of L2 listening instruction rarely, if ever, rely on questionnaire data alone; it is often coupled with another source of data. Further, the answers to questionnaire items that are given by students may suffer from inaccuracy or being incomplete due to the difficulty that arises from giving an account of internal constructs, such as attitudes and perceptions (ibid). This may be the situation especially when the questionnaire is completed in the second language, in which case less proficient L2 learners face a serious obstacle. Hence, Mackey and Gass suggest that questionnaires be carried out in the participants' L1 whenever possible. Another problem with questionnaires is

that double-checking the validity of the answers is rarely, if ever possible (Dörnyei, 2003). Also, the length of time participants are usually willing to dedicate to answering a questionnaire is rather short, which consequently "limits the depth of the investigation" (Dörnyei, 2007, p. 115). More questionnaire items are likely to increase the reliability of the questionnaire, yet this may lead to a decrease in number of returns (Wagner, 2010). Despite problems with questionnaires, "careful and creative questionnaire construction," Dörnyei (2003) says, "can result in an instrument that motivates participants to give relatively truthful and thoughtful answers" (p.16).

In the field of language learning strategies, in particular, the use of questionnaires as a research tool is not without problems. One of the problems mentioned in the literature is that when using rating scales "learners may overestimate or underestimate the frequency of use of certain strategies" (Cohen and Scott, 1998, p. 30). Another problem is that the students may be "unaware of when they are using a given strategy and even more importantly, how they are using it" (ibid). Furthermore, when using self-report questionnaires, students may claim to use strategies that they do not in fact use, they may fail to recall strategies they have used in the past, or they may even misinterpret the strategy description in a single item (White et al., 2007). Data resulting from questionnaires, Macaro (2001) states, is "an initial entry into the 'underworld' of strategy use" (p. 49).

Although questionnaires have some weaknesses to them, as portrayed above, they are still considered a useful tool. One way to overcome these weaknesses, which I followed in this study, is to use them with other tools. In terms of questionnaire types, there are mainly two types of questionnaire items: open and closed items (Brown, 2001, Dörnyei, 2003, Mackey and Gass, 2005). In the latter, it is the researcher who decides in advance on the possible answers to each questionnaire item based on the research questions or information resulting from focus groups, for example. In the former, on the contrary, the participants are given complete freedom to answer in whatever manner they choose. As mentioned previously, questionnaires are better administered in the learners' native language whenever possible (Mackey and Gass, 2005). Since I was dealing with a homogenous group of participants in

terms of L1, I was able to follow this piece of advice. I used an adapted closed-item questionnaire to track changes in the participants' metacognitive knowledge over the course of the study. Open-ended questionnaires were only used with the experimental group by the end of each phase of the study. I give more details of each type separately below.

3.6.1.1 Closed-item Questionnaire: MALQ

Closed-item questionnaires are fast to complete on behalf of the participants and rather straightforward in terms of coding, analysing and interpreting the data which can easily be expressed numerically (Gass and Mackey, 2007). They are in fact "directly to the point and deliberately more focused" (Brown, 2001, p. 37). This consequently leads to "greater uniformity of measurement and therefore greater reliability" (Mackey and Gass, 2005, p. 93). The coding and tabulation of closed-item questionnaires, Dörnyei (2003) states, is "straightforward and leaves no room for rater subjectivity" (p. 35). However, one pitfall is that this type of questionnaires does not give the participants the freedom to add any "remarks, qualification and explanations to the categories" (Cohen et al., 2011, p. 321). Brown (2001) also says that such questionnaires "provide a fairly narrow range of possible answers" (p.38). A partial solution to this problem, he says, is to add the option "other" to the items of the questionnaire in order to give the participants some freedom in terms of possible answers.

In my study, changes in metacognitive knowledge concerning listening were measured using the metacognitive awareness listening questionnaire (MALQ) (see Appendix E). The MALQ "is a listening questionnaire designed to assess second language (L2) listeners' metacognitive awareness and perceived use of strategies while listening to oral texts" (Vandergrift et al., 2006, p. 431). The questionnaire was developed and validated by Vandergrift et al. (2006) and is "a reliable listening questionnaire with strong underlying psychometric properties" (p.432). The MALQ, they state, is designed "on a theoretical model of metacognition" and can be used by researchers as a pre-test/post-test to "assess learners' growing awareness of the processes underlying successful L2 listening" (p. 453). This questionnaire is designed for researchers and instructors alike to help evaluate the degree to which

language learners are aware and capable of regulating the L2 listening comprehension process (ibid). The MALQ, according to Lynch (2009), "appears to represent the most tangible outcome from two decades of research into metacognitive strategy use in listening" (pp. 82-83).

 The MALQ consists of 21 items which fall under five distinct factors: problem-solving, planning and evaluation, mental translation, person knowledge and directed attention. Initially, Vandergrift et al. (2006) explain that the 21 items were grouped logically in sequence in terms of strategies used before, during and after listening to texts. However, they had to randomly interweave some items with others for the sake of sustaining the students' attention. Further, a couple of items were negatively expressed in order to avoid the students falling into a pattern of answers by selecting the options on one side of the scale. The draft version was tested on a sample of 966 participants from a variety of countries, learning contexts and language proficiency levels. A revised version was later tested on another large sample of 512 participants from Canada and Iran. Vandergrift et al. (2006) advise that the MALQ be used after learners have engaged in a listening task. Combining the questionnaire with a listening task is "expected to anchor and facilitate the respondents' self-reporting of metacognitive awareness about L2 listening" (Goh and Hu, 2013, p. 6). In the current study, the MALQ was always administered after the students have completed the TOEFL listening test.

As previously mentioned, researchers recommend translating questionnaires into the participants' L1 in order to avoid any confusion L2 might cause (Mackey and Gass, 2005, Vandergrift et al., 2006). Although translating questionnaires is common practice, the issue of how they should be translated from one language to another has been marginalized in the literature on questionnaire design (Dörnyei and Csizér, 2012). The quality of data obtained is improved, however, when a questionnaire is presented in the participants' native language (ibid). Hence, I used a version of the MALQ that was translated into L1, Arabic, which I used in a previous study (Altuwairesh, 2009). In my previous study on metacognitive listening strategies, the Arabic version of MALQ was used and participants reported no difficulties or ambiguities in the questionnaire. That version was verified by three colleagues in the

field who acted as "bilingual external reviewers" to ensure the equivalence of the two versions (Dörnyei and Csizér, 2012, p. 79). The translated version was piloted as well before using it as an instrument in the actual study (Altuwairesh, 2009). It was further piloted in the study in hand (see Section 3.7). One change I had originally introduced to the first version I used was changing the questionnaire scale from a 6-point likert scale to a 4-point one. The reason I did this was that the two points in the original MALQ that I excluded were (slightly disagree and partly agree) which to me seemed quite redundant: if you partly agree, then you are most likely to slightly disagree. Partial agreement and disagreement is relative and would cause confusion on behalf of the respondents, hence I avoided these two points. In-line with Vandergrift et al. (2006), however, I did not opt for a 5-point scale in order not to give the participants a chance to hedge. The result was that I used a 4-point likert scale, with strongly agree on one end and strongly disagree on the other end. There were no reported problems with the scale when I piloted it in both the previous study as well as the study in hand.

Vandergrift (2010) explains that questionnaires can be used repeatedly to "track any changes in awareness of the listening process or listening attitudes over time" (pp. 165-166). A very recent study by Vandergrift (2010) investigated the effects of a metacognitive process-based approach to teaching L2 listening over a semester. The researchers used the MALQ at the beginning, middle and end phases of the study to track development of metacognition about L2 listening. The MALQ was also used for the same purpose in other studies including (Goh and Hu, 2013, O'bryan and Hegelmeimer, 2009). Likewise, I used the MALQ to identify the metacognitive knowledge of the participants when listening to texts in English before conducting the study. The MALQ was also used by the end of the two phases of the study and, hence, any changes in the participants' answers to the MALQ would be an indication of changes in their metacognitive knowledge. Furthermore, this will be an indication of changes in their proficiency level, for research claims that "metacognitive strategy use increases with learner proficiency level" (Lynch, 2002, p. 42). The internal consistency for the overall MALQ scale was $\alpha = 0.75$, which is a good indication and very close to that reported by Goh and Hu (2013). This

indicates that the MALQ scale had acceptable reliability for the participants who took part in the study.

However, as previously stated, questionnaires provide a rather "thin description of the target phenomena" (Dörnyei, 2007, p. 115). Questionnaires, though a very useful research tool, tend to have a limited scope, whereas other introspective methods such as diaries, think-aloud protocols and interviews do not limit what students can report (Goh and Hu, 2013). That is why I used them mainly to track the development of participants' metacognitive listening awareness throughout the study and, hence, there was a pressing need for another instrument. This was the listening diary. However, I will first discuss open-ended questionnaires before turning to listening diaries.

3.6.1.2 Open-ended Questionnaires

Open-ended questionnaires consist of items in which the question is not followed by any responses to choose from but rather by a blank space to be filled in by the respondent (Dörnyei, 2007). This type of questionnaire works very well especially in the case when they are not completely open but have some degree of guidance, such as: being of specific nature, including clarification questions, requiring some sentence completion or being a form of question which leads to a succinct short answer (ibid). I used open-ended questionnaires with the experimental group at the end of each phase of this study which aimed mainly at evaluating the effectiveness of the intervention from the participants' viewpoint. This is similar to the study by Vandergrift (2003a) in which students had to reflect by the end of the study on the usefulness of each of the two tasks he used. Goh and Taib (2006) also asked their participants to reflect on the process-based lessons by writing a response to the following probe "What I think about my listening ability at the end of the 8 sessions" (p.228). Graham (2007) also had students complete a questionnaire at the end of the project they were involved in. Among the aims of Graham's final questionnaire was to have students comment on how much they felt their listening had improved by the end of the project and how helpful strategy training had been to them. The two open-ended questionnaires I used in my study are discussed below.

a. End of Phase One Questionnaire

By the end of the metacognitive instruction phase, and before embarking on the deliberate practice phase, I wanted to know what listening practice the participants in the experimental group engage in outside the classroom and if they deliberately practise listening in English at all on their own or not. I also aimed, as mentioned above, to investigate the impact of phase one from their point of view (in response to research question 1). To find out answers to these queries, I gave out a brief survey of four questions and asked the participants to reply to the questions in writing and hand them back to me the next session. For this survey, I got a response rate of 90% (19 out of 21 participants). The questions were in Arabic and the students were given the freedom to answer in either of the two languages they felt comfortable with: Arabic or English. The four questions were as follows:

1. What forms of English listening practice do you do outside the class?

2. How many times per week do you deliberately sit down to practise listening in English? And for how long?

3. How much have you benefitted from taking part in this study so far?

4. Did you find in this study what you were hoping to achieve in improving your listening skill or not? And why?

I have in fact made use of some of the suggestions they made in response to questions 3 and 4, particularly comments they made on the level of the texts used and the type of tasks they were required to do. As a result of these two comments, I introduced texts at a higher level than those used in the first phase of the study. The lecture tasks were also changed from MCQs to either summarizing the lecture or writing an outline of it. Answers to questions 1 and 2 helped in answering research question 4; comparing between successful and less successful participants in terms of listening practice. A translated version of the student responses can be found in Appendix F.

b. End of Phase Two Questionnaire

By the end of the study, I wanted to know from the participants themselves how much they benefited from the intervention sessions and which of the two phases

they thought was more beneficial to them. Hence, I typed the following questions for the participants to answer and give back to me when completed:

1) The study has witnessed two phases: strategy phase and deliberate practice phase:

   ➢ What are the advantages and disadvantages of the strategy phase?

   ➢ What are the advantages and disadvantages of the deliberate practice phase?

2) Comparing between the two phases of the study, which one did you find more beneficial and why?

3) By the end of the study, do you notice any change in your listening ability in English?

These questions were also typed in Arabic and the students were again given the freedom to choose the language they prefer to respond in. I used the word strategy in this questionnaire to refer to phase one, though it was not particularly a strategy training phase, for reasons of simplification. The students' responses to these questions helped in answering research questions 1 and 2: investigating the impact of the two phases of the study. Towards the end of the study, three participants withdrew from the sessions. Hence, the number of participants in the experimental group decreased to 18 by the end of the study. I got a response rate of 14 out of 18 students on this final questionnaire: 78 % (see Appendix G for a translated summary of responses). The participants' answers to these questions will be presented in the following chapter.

3.6.2 Listening Diaries

Diaries, according to Dörnyei (2007), have been used by researchers in the field of social sciences since the 1970s, while the use of them as a research tool in applied linguistics did not appear until the beginning of the 1980s. Since then, "diaries have secured for themselves an important place among research tools" (Halbach, 2000, p. 85). Diaries are defined as "self-report instruments used repeatedly to examine on-going experiences" (Bolger et al., 2003, p. 580). In the field of language learning, a

diary study is defined as "a first-person account of a language learning or teaching experience, documented through regular, candid entries in a personal journal and then analysed for recurring patterns or salient events" (Bailey, 1990, p. 215). A diary presents a form of self-completion questionnaire which remains relatively underused (Bryman, 2012). For the purpose of research, a diary usually gives a retrospective account of things that have already happened, and since they are a form of documentary data, diaries can be analysed in various ways (Denscombe, 2010).

The earliest and still the most common approach in dairy studies is the paper and pencil diaries (Bolger et al., 2003). The purpose of a diary study may be either to investigate a certain phenomenon as it unfolds over time, or to examine closely a certain, and usually rare, phenomena (ibid). The main intent of diary studies in the area of second language research, however, is to make sense of the phenomenon of language learning and whatever variables contribute to it from the learner's perspective (Bailey, 1990). The use of diaries in research allows access to the target phenomena from the students' viewpoint, rather than that of the researcher (Mackey and Gass, 2005), in other words they are "learner-generated" (Cohen and Scott, 1998, p. 40). Yet, although diaries may be used in experimental as well as survey research, they are usually not the main source of data (Alaszewski, 2006). The use of diaries as a data collection method provides "an important complement to other research tools" (Halbach, 2000, p. 85). This is also the case in my study, as the diaries of the experimental group provided data on metacognitive knowledge which complemented data generated via the MALQ.

Studies that use diaries as a form of data collection can be grouped into three broad categories: interval-, signal-, and event-contingent protocols (Bolger et al., 2003). The most distinct design strategy is the event-contingent one in which participants are asked to give a self-report every time the event in question takes place (ibid). This is the diary design followed in this study as participants were asked to write in the structured diaries after each listening text, which acted as the triggering event in this study. This entails that in a single listening session, students may end up writing two to three diaries, depending on the number of listening texts played. Diaries are among the various procedures used to elicit and assess learners' metacognitive

knowledge about listening and have been used as instruments in many studies on L2 listening, e.g. (Anderson and Vandergrift, 1996, Goh, 1997, Goh and Taib, 2006, Kemp, 2010, Vandergrift, 2003a). Diaries are used in the area of second/foreign language learning to give an "insider account" of the learning situation (Dörnyei, 2007, Bailey, 1991), to help learners become more aware of the learning process (Rubin, 2003), to promote "noticing" (Kemp, 2010), to reflect on listening strategy use (Graham and Macaro, 2008) and to gain insight into the "actions taken to improve listening performance" (Vandergrift, 2010, p. 166).

Diaries are considered as a form of introspective method, a means of "obtaining information about learners' internal processes" (Gass and Mackey, 2007, p. 47), information that is usually "hidden or largely inaccessible to an external observer" (Bailey, 1990, p. 60). They are also useful learning tools which help language learners reflect on the experiences they have had when learning the language (Vandergrift, 2010). While the researcher uses them to gather data for a study under investigation, diary writing helps learners become more aware of the learning process (Rubin, 2003). Keeping a learning diary, Bailey (1991) believes, can also serve as a "safety valve," in which learners release any frustrations they face while learning a language instead of giving up (p.85). Also, Anderson and Vandergrift (1996) state that "keeping a language learning diary is a way of developing student awareness of strategy use and fostering active, personal attention to strategies" (p. 34). A further advantage of the use of diaries is "the dramatic reduction in the likelihood of retrospection, achieved by minimizing the amount of time elapsed between an experience and the account of this experience" (Bolger et al., 2003, p. 580). Dörnyei (2007) states that the merits of diaries in the study of second language learning are hard or even impossible to "replicate" through the use of other means of data collection (p.157). If properly done, Bailey (1991) says, diary studies can "provide us with important missing pieces in this incredibly complex mosaic, - - pieces which may not be fully accessible by any other means" (p. 87). Data produced by diaries are a mixture of both records of language learning events learners undertake as well as the learners' interpretation of such events (ibid).

However, the scarcity of diary studies in applied linguistics, according to Dörnyei (2007) is due to two main reasons. One is that the use of a diary is a rather "novel" method and hence has not been dealt with in many methodology course books. Second is that diaries present a number of potentially serious weaknesses. One such weakness is that diaries require commitment on behalf of the participant, who is obliged to write a diary entry regularly, which is not the case in other types of research instruments (Bolger et al., 2003). Another issue is the substantial burden repeated diary completion poses on the participant. However, this issue can be addressed by designing diary questions that are short and require only a couple of minutes to complete (ibid). Diary studies are also time-consuming, in terms of both participants, who are required to write the diary entries, as well as the researcher, who then has to analyse these entries. This, Mackey and Gass (2005) explain, represents "a significant expenditure of time" on behalf of both parties involved in the study (p. 204). Another serious disadvantage is the process of attrition; "people decide they have had enough of the task of completing a diary," which leads "diarists to be less diligent over time" (Bryman, 2012, p. 243). Diaries may also suffer from memory recall problems, when the diarist fails to record details quickly as they occur (ibid).

The lack of objectivity in diaries, Graham (1997) explains, may pose a serious threat to the validity of the information obtained from them. Also, the quality of the data produced from diaries cannot be anticipated, for they can vary from thick, detailed descriptions to "sketchy reports" (ibid: 80). Bailey (1991) clarifies that a lot of the limitations of diary studies are related to "the concept of generalizability" (p. 78). External validity, which also refers to the concept of generalizability, according to Bailey is "the extent to which the findings of a study can be applied beyond the context of the original investigation" (ibid). The small number of participants involved in a diary study limits the possibility of generalizing the findings to all language learners (Cohen and Scott, 1998). Yet, though most problems with diary studies "hinge around the notion of generalizability," achieving it is "neither the purpose nor the point of the diary study" (Bailey, 1991, p. 83).

In the area of L2 listening, Vandergrift (2010) states that diaries are particularly useful for "gaining insights into learner awareness of listening processes [and] strategy development" (p.166). Raising the students' metacognitive awareness through guided listening diaries is an indirect way of improving L2 listening performance. In this technique, learners take a backward step from real-time listening, look into their listening processes and work on developing their own views about what makes an effective listener (Vandergrift and Goh, 2009). The use of diaries in a listening lesson, especially if coupled with teacher feedback, encourages learners to see listening as "an activity in which improvement is possible through action taken by the listener" (Graham, 2007, p. 92). Yet, the use of diaries in my study played further roles besides that of raising awareness. One of these roles was as a motivational tool, for as Vandergrift (2002) states, having learners reflect on the successful completion of a listening task "can build student motivation for L2 listening and learning" (p. 570). Guided reflections on listening, Goh (2008) says, "engage learners in not only thinking back to events that have taken place, but also to plan ahead as a way of managing their own learning" (p.200). In fact, diaries help learners "step back and reflect in order to understand and change learning behaviors" (Vandergrift, 2002, p. 571). Consequently, the use of diaries facilitates the participants' reflection on the process of listening, rather than thinking merely about the content of listening, the latter being the common case when doing listening tasks.

The suggestion in the literature is to use diaries with selected prompts as a means of developing metacognitive knowledge (Vandergrift and Goh, 2009). This kind can "direct learners' reflections on specific listening events so that they can evaluate their performance and take positive steps to improve their listening skills" (ibid: 402). The use of guided diaries, in particular, is quite common in the area of L2 listening instruction. For instance, Graham and Macaro (2008), Goh and Taib (2006), Graham (2007), Goh (1998) and Vandergrift (2002) have all used prompts to guide their participants when completing the listening diaries. In line with these studies, I used a guided diary to collect data for my study. Besides recommendations in the literature, the reason I opted for a guided, rather than an open diary was two-fold. First, I assumed that some participants are not used to diary writing, as it is not

common practice in our culture, and hence they should be given guidance as to how this is done. Second, due to the limited time of the study, a guided diary would help me gather the data crucial for the study and avoid students drifting away from the main purpose of the diaries. I used a set of diary probes adapted from Vandergrift (2003a), translated into English from French by a French colleague. The diary probes were further translated into the participants' L1, Arabic, and they were given the freedom to respond in either L1 or L2. The aim of these questions was to have the students reflect on the success of their listening efforts as well as try to identify the factors that facilitated or interfered with their listening (Vandergrift, personal communication). However, Vandergrift did not attempt to analyse the students' responses to these guided reflection questions in his study. Table 3.2 below summarizes the diary probes used in phase one of the study and the types of metacognitive knowledge elicited by each.

Diary Probe	Metacognitive Knowledge
1 & 2/ Did you find the task easy or difficult and why?	Person Knowledge Task Knowledge
3/ What has helped you to understand?	Strategic Knowledge Task Knowledge
4/ What will you do different next time?	Strategic Knowledge

Table 3.2 Phase 1 Diary Probes & MK Elicited

The listening diaries were based on guided-reflection questions, which focused on certain aspects of metacognitive knowledge, including person, task and strategy knowledge. The ultimate aim of the set of probes was uncovering the participants' metacognitive knowledge. The students were asked to write in their diaries immediately after listening to a text and completing the accompanying task. This is considered a form of immediate retrospection, which allowed participants to reflect on their mental processes before they were forgotten (Goh and Taib, 2006). Doing it this way has two advantages: one is increasing the reliability and comprehensiveness of the diaries, and second providing a "well-defined context for individuals to base

their reflection on" (ibid: 228). This helped ensure that the students based their answers to the reflection probes on "concrete experiences and were not general statements or abstractions about the listening process" (ibid: 226).

The participants in my study wrote on loose A4 sheets on which the diary probes were typed for them. In phase two of the study, I introduced some changes to the diary probes, so that the participants would not get bored with answering the same questions repeatedly. However, these diary probes also aimed at revealing metacognitive knowledge of the participants. The diary probes used in this phase were adapted from Liu and Goh (2006, p. 94), and were as follows:

1. What are the important things you did to understand the text you just heard?

2. What did you do to check your listening comprehension?

3. What problems did you have?

This set of diary probes was used in the first four sessions of the deliberate practice phase. Then, when I felt that the participants were getting bored with the routine, I tried to introduce some slight changes to the probes. I used a different font to type the diary probes and I started the diaries with the probe: What did you listen to? This was done in an attempt to regain the participants' interest in answering the listening diaries, and was used in the final two sessions of the deliberate practice phase. Goh (2008) states that "as reflection tasks can be repetitive and thus run the risk of being boring and tedious to learners after a while, a challenge for teachers is in designing new formats, identifying areas of focus and determining pivotal points in a language course where these activities take place" (p. 200). The use of journals for participants in my context is something rather new and may have had its shortcomings in terms of familiarity; the consequence was that they wrote very little in their diaries. The use of the diaries for a long time was also boring for some participants. Yet, problems with the use of diaries as a research tool have been reported in the literature. For instance, Graham and Macaro (2008) indicate that the diary was not well kept with participants in their study.

3.6.3   TOEFL Listening Test

One issue worthy of notice here is that assessment of listening has received the least attention (Alderson and Banerjee, 2002) and that "the problems in finding a completely valid and reliable way of assessing listening are widely acknowledged" (Graham et al., 2008, p. 56). The use of pre- and post-tests to measure development in L2 listening ability by the end of an intervention is quite common in the field, e.g. (Cross, 2009 , Goh and Taib, 2006, Vandergrift, 2010). This was in fact posed as a suggestion for future research by Vandergrift (2003a), who followed a systematic approach to develop the learners' metacognitive knowledge, yet he did not investigate the impact of this approach on his participants' listening achievement.

Vandergrift (2010) says that listening test scores "provide baseline data from which to measure growth in listening ability over time and/or consequent to a pedagogical intervention" (p. 162). This type of an instrument, however, does not ensure pure measurement of listening ability (ibid). Further, Lynch (2002) says that "it is not easy to design listening comprehension tests that reflect the purposes of real-life listening" (p. 42). Neither multiple-choice questions nor producing summaries are reflections of real-life listening tasks, "yet both activities are standard practice in tests of listening" (ibid: 43). The difficulties of testing listening ability still being unresolved, I followed the standard practice found in most listening tests.

In my study, EFL listening ability was measured using a sample TOEFL listening test (Phillips, 2008). The rationale for using a TOEFL test in this study, rather than any other standardized test, is that the course book the participants use in their Listening 4 course, *Mosaic Π*, has a brief section at the end of each chapter dedicated to TOEFL practice. Hence, they are somewhat familiar with the general technique of the test. Further, the test I used is based solely on conversations and lectures, which are similar to the types of listening the students practise in their actual listening class. The test also minimized the amount of reading required by the students by having them listen to the questions after the text, rather than reading them. It also minimized the amount of writing required, as it was based mainly on multiple-choice questions. The writing they did was merely copying; no

composition whatsoever was required (see Appendix H for TOEFL test). Subsets of the test included two separately timed sections. Each section had one conversation and two lectures. The students heard everything, including texts and questions, only once. The test took approximately 50 minutes to complete. The reported internal consistency of this test is $\alpha = .8$, suggesting that the items have relatively high internal consistency. The nature of the test left no room for rater subjectivity. However, to eliminate any errors, I did the marking twice for each participant.

Similar to Vandergrift (2010), and in order to track a real change, I needed everyone to do the same test. Participants in the treatment group were tested on listening ability at Time 1, before the start of the study, Time 2, by the end of the first phase, and Time 3, by the end of the second phase which also marked the end of the study. The comparison group, on the contrary, did the test two times only: prior to and subsequent to the intervention. It was not feasible to have the comparison group do the test in the middle of the study, as the test took 50 minutes to complete and this would have been taken off their listening course time, unlike the experimental group whom I was meeting during their free time. The first time the test was administered before commencing the study was to identify the participants' EFL listening ability. Then the test was administered at the end of phase one for the second time to measure any impact this phase had on the experimental group's listening ability. By the end of the second phase of the study, the listening test was administered for the last time to measure the influence deliberate practice had on the participants' listening level. The post-test also aimed at comparing the listening test results of the two groups.

There was at least one month between one test and another, and the students had no feedback on any of their tests until the end of the intervention. The use of the same listening test could possibly have had an effect on the end results. However, since the comparison group did not improve much on the post-test, we can probably assume that test-effects were minimal. As Vandergrift and Goh (2009) explain, the complexity of SL/FL listening leads to compromises in assessment.

3.7   Data Generation

The following part highlights the two stages of the study: pilot and main stages. Then details of the actual study and what took place during the intervention sessions will be given below.

3.7.1   Pilot Study Stage

A pilot study is conducted "to uncover any problems and to address them before the main study is carried out" (Mackey and Gass, 2005, p. 36). For the pilot stage, I looked for female Saudi volunteers based in Leeds of a similar age to the target sample. I managed to find two volunteers who were willing to cooperate with me in the pilot study. I had some very helpful feedback from them particularly on the instruments. They commented on the difficulty of the TOEFL test and suggested using two letters, one for recruitment and one with details as an informed consent letter, which I did follow in the actual study. They also made a comment on how boring it was to answer the same diary questions every time. I addressed this issue in the actual study by using two different sets of diary questions in each phase, and slightly changing the wording in the last two sessions of phase two.

Piloting the questionnaire, however, entails using it with a sample that is very much similar to the target participants for whom it is intended to be used (Dörnyei and Csizér, 2012). Since I adapted a questionnaire that has been validated and rigorously tested, I needed only to ensure the translation was free of ambiguities. This was actually done in the original study when I first used the translated version of the MALQ, which was also conducted at COLT and with participants from a Listening 4 course (Altuwairesh, 2009). I also asked the two volunteers in the pilot stage of the current study to comment on the translated version of the MALQ. There were no reported difficulties.

However, due to the very low proficiency level of these two volunteers, which I was not aware of before starting the pilot, I could not carry out the whole study with them. I had to stop after two sessions, as I ended up explaining basic vocabulary

items to them. The aim of piloting the instruments was achieved, however, since they were all translated into Arabic, and there were no reported language issues that faced the volunteers.

3.7.2 Main Study Stage

The main data collection stage took place during the period from the end of March 2011 to the end of May 2011; the best part of the second semester of the academic year 2010/2011. The study, as mentioned previously, involved two groups (N= 42); the experimental group (*n* = 21) and the comparison group (*n* = 21). The intervention had two main objectives; one was to raise the participants' metacognitive awareness, and then measure the impact of this form of metacognitive instruction on the participants. Second, was to explore the impact of deliberate practice on the students' metacognitive knowledge and listening ability. Therefore, the study was designed to consist of two phases: a metacognitive instruction phase and a deliberate practice one. Ultimately, both phases aimed at improving the EFL listening ability as well as metacognitive knowledge of the participants. The chief principle behind the two phase was to encourage students to take a more active role in developing their L2 listening, as suggested by Goh and Taib (2006).

The first time I met the volunteers, I gave them the informed consent letter to read and sign. They were also asked to provide me with their emails to arrange for future sessions. The fact that the students were volunteers and were prepared to make arrangement for the future lessons provided evidence of the students' motivation and so was an important part of the research design as deliberate practice assumes that the participants are motivated. As stated previously, Anderson (2005) explains that under the deliberate practice approach, students are motivated to "learn" not merely "perform" tasks.

During that session, I also administered the TOEFL test and the MALQ for the first time. The students seemed to be frustrated by the high level of the test. However, I tried to reassure them by explaining that the sessions they will take part in will hopefully lead them to finding it less difficult. The use of the MALQ, which was

administered right after the pre- test, served as the first step in the awareness-raising process. The texts participants listened to throughout the intervention were chosen from published materials, including *Contemporary Topics 1,* and *Longman Preparation Course for the TOEFL Test: iBT Listening*. These books are especially designed for teaching and training purposes, and as Buck (2001) argues, teaching materials are a source of suitable pre-recorded texts. He also says that "published listening materials are often very well made; they are at appropriate difficulty levels and on suitable topics" (ibid: 156). Further details of the topics and tasks used in each session will be given below.

The first phase of the study took place over a period of three one-hour sessions. The second phase, on the other hand, was held over six one-hour sessions. The reason for the difference in the amount of time dedicated to each phase is that, as stated previously, phase one was supposed to serve as preparation and lead in to the second phase, which is the main part of the study. This aspect of the research design was associated with the need for participants in deliberate practice being motivated and, as discussed in the literature review (See Section 2.5.2), an increase in the participants' metacognitive awareness would enhance the learners' motivation. More details on each of the two phases of the study are given below.

3.7.2.1 Metacognitive Instruction Phase

The metacognitive instruction phase took place over a period of three one-hour sessions. Following the suggestions made by Vandergrift (1999) for developing students' metacognitive awareness, I started this phase of the study with a discussion of the concept of strategy in general. Since the same word is used in Arabic, and all participants shared the same L1, I tried to make use of that by asking them to think about the use of the word in Arabic, and then give examples of strategies in English. To make the concept more vivid, and since one meaning of strategy is *plan*, I asked the students to think about the act of cooking. I told them that to end up with a well-presented dish, one must have a recipe in mind and the required ingredients available. Likewise, if you listen, especially in a foreign language, with a plan in mind and being well-equipped with strategies to help you cope with difficulties, you will be better off than listening unprepared and unaware of helpful strategies.

To further clarify the concept, I asked the students to draw a comparison between reading and listening in a foreign language. Macaro (2001) believes that "a good starting point in raising awareness of listening strategies is to identify with the class the differences between reading and listening" (p. 192). We discussed as a group the different strategies the students use when reading a text in English. I then told them that listening does not differ much from reading in terms of the necessity of strategies to help in accomplishing tasks and coping with difficulties. The two analogies of cooking and reading were used to convince the participants that listening is a skill, just like reading and cooking, and that there are certain strategies to be used whenever practicing any of these skills.

The following step was to draw the participants' attention to "the pedagogical sequence of pre-listening, listening and post-listening" as suggested by Vandergrift (1999, p. 172). The three stages were written on the white board; then, a group discussion on the strategies used in each stage was held. This sequence, according to Vandergrift, "promote(s) the acquisition of metacognitive strategies in three categories: planning, monitoring, and evaluating" (ibid). This three-stage pedagogical sequence is not new, as Vandergrift explains; however, if used consistently, it can lead students through "the mental processes for successful listening comprehension" (ibid). Classroom discussions are also recommended by Goh (1997) who states that "by finding out what other students are doing, learners can evaluate and improve their own learning practices" (p. 367). Group discussions were also used by Graham and Macaro (2008) in their intervention study.

The listening texts used in the metacognitive awareness-raising phase were all taken from *Contemporary Topics 1*, which is dedicated to academic listening and note-taking. The lecture topics in this book, according to the series editor, draw from a wide range of academic disciplines, feature lecturers engaging with a live student audience and also take place in real lecture hall settings (Rost, 2009). The book also provides support through the "Before You Listen" section which is used to help students activate concepts and vocabulary directly related to the lecture they are about to listen to. This helps students bring to conscious level the knowledge they

possess about the topic, knowledge they have of how information is organized in various types of listening texts and any other relevant cultural information (Vandergrift, 1999, p. 172). The sessions we had in this phase of the study focused on the 'Listen to the Lecture' parts of three units from *Contemporary Topics 1*. This section allowed for two listening cycles; one to focus on top-down listening strategies, where students were asked to listen for main ideas and had a task to complete which served that particular purpose. The second listening cycle focused on bottom-up listening strategies, where students were required to listen for details and were given a task to serve that purpose. Students were asked to take notes each time they listened to the lectures. Table 3.3 below presents a summary of topics and tasks used in each of the three sessions in phase one.

Session	Topic	Length	Before you Listen	Listen for Main Ideas	Listen for Details
1	Second Language Acquisition	5 minutes 21 seconds	Select most important factor for learning L2	5 MCQs	Read statements and put (✓) in correct column
2	Public Health: Sleep Deprivation	5 minutes, 54 seconds	Consider consequences of not having enough sleep	Circle 5 effects of sleep deprivation and group into immediate & long-term effects	9 MCQs
3	Business: Different Approaches to Negotiation	6 minutes, 14 seconds	Indicate most important goal of a successful negotiation	Read 5 statements & correct errors in underlined phrases	Match actions with results of different approaches to negotiation

Table 3.3 Summary of Phase One Sessions

One tool I used in this phase was the Performance Checklist for Listening (see Appendix I), developed by Vandergrift (1999). Since I was working with a homogenous group, I translated the listening performance checklist into the participants' L1, as Vandergrift advised (ibid: 173). The aim behind using this

checklist was to guide the participants to focus consciously on planning, monitoring and evaluation prior to and after the listening tasks. The use of an instrument like this, as Vandergrift states, can provide students with guidance on how to prepare for a particular listening task, and how to evaluate their performance after accomplishing the task (ibid). It is in fact a practical application of the pedagogical sequence mentioned above. A strategy tick list was also used by Graham and Macaro (2008), who explain that this tool helps "continually raise awareness of strategies available without suggesting that there was any one strategy that was superior to others" (p. 761). The checklist was used in my study as a task, rather than a data collection instrument. Hence, the data was not analysed.

Metacognitive awareness, as mentioned previously, is not observed directly. Hence, the only way to gain access to it is by asking learners themselves to tell us about it. For this reason, the Guided Diary was another instrument used in this phase (see Section 3.6.2). The diary probes used in this phase are shown in Table 3.2. Once the participants had finished the listening tasks, they were asked to reflect individually on their listening experience. Writing in the guided diaries was the last step in each listening session in this phase and the participants were given the freedom to choose between answering the prompts either in Arabic or in English. Hence, the three one-hour sessions that formed the metacognitive instruction phase were ordered in the following sequence: first students did the "Before You Listen" activity, and then they completed the "Before Listening" section of the performance checklist, after that they listened to the lecture twice, each time completing a required task (shown in Table 3.3 above), and then they completed the "After Listening" section of the performance checklist. Finally participants had to write in their guided listening diaries individually.

The discussion, checklist and diaries had students think about the processes involved in listening, as opposed to usual listening tasks which merely focus on the product of listening. Listening tasks, Vandergrift (2003a) states, usually "do very little to develop metacognitive knowledge through raising learners' consciousness of listening processes" (p. 426). These sessions gave students the chance to practise listening to texts without the threat of being evaluated which, according to

Vandergrift (2007), is a way of helping the participants "gain a greater awareness of the metacognitive processes underlying successful listening and learn to control these processes themselves" (p. 198). By the end of this phase, I held a separate session in which the TOEFL test and MALQ were administered for the second time to investigate the impact of this phase of the study on the participants' EFL listening ability and metacognitive knowledge. A brief open-ended questionnaire (see Section 3.6.1.2.a above) was given out to the students by the end of this phase.

3.7.2.2 Deliberate Practice Phase

The deliberate practice phase took place over a period of six one-hour sessions. I started the deliberate practice phase by briefly explaining to the students what is meant by the term and the elements necessary for practice to be considered 'deliberate practice' as opposed to other forms of practice. After giving them a brief idea about the concept, I drew the deliberate practice diagram as shown below.
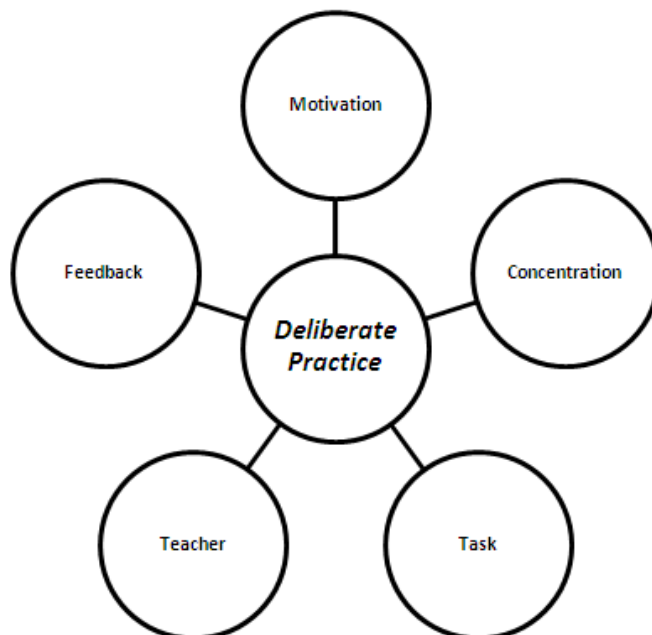
Figure 3.1 Deliberate Practice Diagram

The diagram is based on elements of deliberate practice as mentioned in the literature (see Section 2.5.3). These elements can be categorized into internal factors, such as concentration and motivation, as opposed to external ones, such as teacher, task and feedback. Each session in phase two opened up with a brief recap on the elements of deliberate practice, with particular emphasis on the internal factors of motivation and concentration which were under the control of the participants. The external factors, on the contrary, were under my control and did not need to be emphasised each time as they were due to take place as planned. I was playing the role of the tutor in each single session, providing feedback to students and allowing for repeated performance. I also had prepared for each session 2-3 listening texts and gave the participants an accompanying task to perform after listening.

Since "extensive experience of activities in a domain" are characteristic of deliberate practice (Ericsson, 2006b, p. 685), I decided this time to give the participants as many listening texts as the one hour session permits. Instead of having only one listening text, as in the metacognitive instruction phase, this time the students were given more listening input, with either two lectures in one session or one lecture and a conversation or two, depending on the length and difficulty of the texts. As far as the three constraints identified by Ericsson et al. (1993) which are inherent in the attainment of exceptional performance (see Section 2.5.3), motivation was tackled by voluntary participation as well as reinforcing the importance of it at the start of each DP session; resource was in my hands as I was available in all sessions, and I had CDs and a laptop, plus enough photocopies of tasks for each session; finally, the effort constraint was tackled by limiting each training session to just under an hour of deliberate practice.

Aside from emphasising the importance of motivation and concentration at the start of each DP session, my role as a teacher followed the conventions of teaching listening in this context, which resembles most features of the comprehension approach to teaching listening. During the deliberate practice phase, the students were only asked to give a summary or an outline for the lectures they listened to, rather than having various tasks as in phase one. Students were given the chance to

listen to each lecture twice. The conversations and short discussions, on the other hand, were followed with multiple choice questions and were played only once due to them being short and rather simple as compared to lectures. As mentioned previously, I introduced some changes to the diary probes in phase two. The questions this time were given only in English, though participants were still given the freedom to choose the language they would like to answer in. The participants used more English in the deliberate practice phase when answering the listening diary probes, even though this was not an aim in itself. They also tended to be more organized in their responses to the diary probes by breaking the response into idea units by either numbering the idea units, breaking them up by using a dash or slash, or writing each idea unit on a separate line. This made the analysis of phase two diaries easier for me.

I was meeting students in small groups, similar to what took place in the first phase, based on their free hours which was an advantage and disadvantage at the same time; an advantage because it gave me the chance to be closer to the participants and provide them with the support they needed. However, it was a disadvantage because sometimes I had to introduce changes based on the experience I had with a group of them, and this sometimes affected the number of texts they had the chance to listen to. As mentioned above, I aimed to give the participants as much practice as possible in the deliberate practice phase. Hence, I gave the ten participants in the first class two lectures to listen to. They were required to write an outline for each lecture and then fill in the listening diary. I was surprised to find out that the participants were not used to writing an outline from scratch; so, it took them a long time to produce an outline for each lecture and they had to rush through the listening diaries. Based on that, I had to take a couple of decisions and introduce some changes in the structure of the deliberate practice phase sessions. First, I decided to give the other group of participants, whom I had not seen at this point, just one lecture in their first session in the deliberate practice phase. This decision enabled me to have more time to introduce the concept of deliberate practice to them. Also, it gave me more time to provide participants with informative feedback on the tasks they have carried out, which is an essential element in deliberate practice. Second, since I aimed for as much listening practice as possible, and one hour sessions were not enough for two

lectures, I decided to include one or two short discussions or dialogues, time permitting, along with a lecture in the following sessions. I also decided to ask participants to write summaries rather than outlines. The only time I asked for an outline after session one, they were given some prompts and were required to fill in the missing information. I reviewed with them the main ideas in a lecture and supporting details as a form of informative feedback. I also provided written feedback to each individual's summary. As for the conversations and short discussions, the tasks were mainly multiple choice questions. Once the students completed the task, we answered the questions together and they were required to correct their mistakes and give themselves a mark. This helped them recognize their mistakes instantly. Table 3.4 below presents details of the texts and tasks covered in each of the six sessions in this phase. As the table illustrates, the students were given 2-3 listening texts per session, which allowed for repeated performance. Further, feedback was given on each single task the students had completed.

Session	Topic	Text	Task
1 (a)	Pros & cons of video games on children	Lecture	Outline from scratch
1 (b)	Genetically modified food	Lecture	Outline
2 (a)	Student consulting with professor	Conversation	5 MCQs
2(b)	How different animals hear	Lecture	Summary
3(a)	Student consulting with lab assistant	Conversation	5 MCQs
3(b)	Student consulting with professor	Conversation	5 MCQs
3(c)	Historical fiction	Lecture	summary
4(a)	Student consulting with a university worker on applying for scholarship	Conversation	5 MCQs
4(b)	Student consulting with her advisor on her schedule plan	Conversation	5 MCQs
4(c)	Opportunity cost (Economics)	Lecture	Outline with some missing lines
5(a)	Student consulting with a university worker on student newspaper	Conversation	5 MCQs
5(b)	Discussion in a physiology class on fractures	Discussion	2 MCQs & 2 matching
5(c)	Zoology class on hibernation	Lecture	Summary
6(a)	Chemistry class on carbon atoms	Discussion	6 MCQs
6(b)	Internet addiction disorder	Lecture	Summary

Table 3.4 Summary of Phase Two Sessions

3.8 Summary

In the present chapter, I gave a detailed account of the research design of this study and outlined the principles behind the research methodology used. As Table 3.1

above illustrates, I designed the research to take account of the principles of deliberate practice and ensured I applied each of these principles in the listening training sessions. I presented in this chapter the research design, ethical considerations, sampling procedures, data collection instruments and data generation stages. The study, as mentioned at the beginning of this chapter, is a mixed-methods, quasi-experimental one in which I generated both QUAL and QUAN datasets. Hence, I will present the analysis procedures for each of these two datasets in the following chapter, along with the results.

Chapter 4 Data Analysis & Results

4.1   Introduction

In the previous chapter, I presented a detailed account of the research methodology of the study, including the design, ethical issues, sampling procedures, data collection instruments and data generation stages. This chapter presents the data analysis procedures as well as results. The design of this mixed-methods study, as mentioned previously, is a concurrent one. Hence, data analysis occurred after the qualitative and quantitative datasets had been collected. This particular design also entails that the two datasets are analysed separately.

The data analysis stage is basically about data reduction (Bryman, 2012). Data reduction here means "reducing the large corpus of information that the researcher has gathered so that he or she can make sense of it" (p. 13). I present below the procedures followed to reduce the data into manageable sets of information in order to make sense of it. Having gathered two different sets of data, both QUAN and QUAL, entailed using different techniques to analyse each of them. I used statistical analysis for the quantitative data; data generated through the TOEFL test and the MALQ. Content analysis, on the other hand, was used to analyse the qualitative data generated through the listening diaries as well as the open-ended questionnaires. I present below details regarding the analysis of each dataset. Due to its dominance in answering the research questions, I begin the discussion with quantitative data analysis.

4.2   Quantitative Data Analysis

As stated in the previous chapter, the participants in the experimental group ($n = 21$) took the listening test and the MALQ three times: before the start of the study, after the first phase and finally by the end of the second phase, which also marked the end of the study. Although there were initially 21 participants in the experimental group, some participants did not complete the pre questionnaire and some others did not

attend the final administration of the test and questionnaire. This, consequently, resulted in some missing data. Participants who had any of their scores missing had to be excluded from the statistical analysis.

I discuss in this part the statistical procedures followed to analyse the data generated from the TOEFL listening test and the MALQ. SPSS statistical package (version 15) was used to analyse these datasets. I will discuss the analysis of the test and the questionnaire separately below.

4.2.1 TOEFL Listening Test

As mentioned in the previous chapter, the experimental group took the test before the study and at the end of each of the two phases. The comparison group, on the other hand, did the test prior to and subsequent to the study. I gave each participant from the two groups a unique identification number from 1 to 42. Then, in order to differentiate between the tests,. pre, end of phase one, and post-tests, I used *x*, *y*, and *z* before the numbers to refer to each of the tests respectively. So, for example, x1 would refer to the pre-test of the participant who holds number 1, z1, would refer to the same participant's post-test.

In order to decide on whether to use parametric or non-parametric tests to analyse the TOEFL listening test scores, a test of normality was first conducted. "A non-significant result (Sig. value more than .05) indicates normality" (Pallant, 2010, p. 63). This was conducted for each of the two groups separately. Results indicated that the pre-test scores for the comparison group were normally distributed, as $p = .50$. This was also true for the pre-test scores for the experimental group, where $p = .43$. Post-test results were also normally distributed for comparison and experimental groups, with a p -value of .72, and .45 respectively. The experimental group's end of first phase results were also normally distributed, $p = .46$. Hence, since all the results were normally distributed, a parametric test was used to analyse the scores of both pre and post tests for each of the two groups. According to Pallant (2010), parametric measures imply a number of assumptions about the population from which the data has been generated such as having normally distributed scores and

also the nature of the data itself (interval level scaling) (p. 204). Table 4.1 below presents the descriptive statistics of the pre- and post-test TOEFL scores for the two groups of the study. This table aims at describing the characteristics of the sample (ibid). However, when running the *t* tests given later, I took account of any missing data through a technique in SPSS called 'Exclude cases pairwise'. This step in the analysis allows SPSS to exclude "the case (person) only if they are missing the data required for the specific analysis" (ibid: 58).

Group	Pre-test (N = 42)					Post-test (N = 39)				
	Mean	SD	Mini.	Max.	*n*	Mean	SD	Mini.	Max.	*n*
EG	22.45	7.02	12	35.5	21	28.03	7.4	14	39.5	18
CG	25.71	4.88	13	35	21	27.4	4.09	20	35	21

Table 4.1 TOEFL Test Descriptive Statistics

A *t* test was used in this case because it is the test used when having two groups or two sets of data, the aim of which is to compare the mean scores on some continuous variable (Pallant, 2010). Paired samples *t* tests are used "when you are interested in changes in scores for participants tested at time 1, and then again at time 2" (ibid: 105). Independent samples *t* tests, on the other hand, are used when having two different groups and the aim is to compare their scores. The former was used to measure the achievement of each group of this study individually. The latter was used to compare the two groups, once in terms of the pre-test scores, and another time for the post-test scores.

4.2.1.1 Experimental Group TOEFL Results

To evaluate the impact of phase one of the study on the experimental group's listening ability level, a paired-samples *t* test was conducted. There was a statistically significant difference in the participants' listening test scores from Time 1 (*M* = 22.45, *SD* = 7.02) to Time 2 (*M* = 24.4, *SD* = 8.7), *t* = -2.67, *p* −value = .02.

This indicated that the EFL listening ability of the participants in the experimental group, measured through the TOEFL listening test, had in fact developed after the metacognitive instruction phase.

To further measure the impact of the second phase of the study on the experimental group's listening ability level, a paired-samples t test was also done. There was a statistically significant difference in the participants' listening test scores from Time 2, before the start of the second phase, ($M = 24.4$, $SD = 8.7$) to Time 3, after the second phase of the study, ($M = 28.03$, $SD = 7.4$), t = -3.2, p -value= .01. This suggests that the participants' listening ability has developed by the end of the deliberate practice phase.

A paired-samples t test was further conducted to evaluate the impact of the intervention as a whole on the experimental group's listening test scores. There was a statistically significant difference in the participants' listening scores from Time 1, prior to the intervention, ($M = 22.45$, $SD = 7.02$) to Time 3, by the end of the intervention, ($M = 28.03$, $SD = 7.4$), t (17) = -5.07, $p = .00$. This suggests that the listening ability of participants in the experimental group has significantly developed over the course of the study.

4.2.1.2 Comparison Group TOEFL Results

In regards to the comparison group's listening test results, a paired-samples t test was conducted to compare their TOEFL scores before and after the study was carried out. Although their mean scores slightly increased, there was no statistically significant difference in the students' listening test scores before the study, ($M = 25.71$, $SD = 4.88$) and after the study ($M = 27.4$, $SD = 4.09$), $t = -1.7$, p-value = .10. This indicates that the listening level of the comparison group participants has not developed much over the course of the study.

4.2.1.3 TOEFL Results Compared

To compare the listening pre- test scores for the comparison and experimental groups, an independent-samples t test was done. There was no significant difference in listening ability level, as measured by the listening test, between the comparison group ($M = 25.71$, $SD = 4.88$) and the experimental group ($M = 22.45$, $SD = 7.02$), $t = 1.74$, p -value= .09 before the start of the study. This result indicated that the participants in the two groups were at similar levels, in terms of EFL listening ability, prior to the intervention.

An independent-samples t test was also conducted to compare the listening post-test scores for the two groups of the study. There was no statistically significant difference in listening test scores for the comparison group ($M = 27.4$, $SD = 4.09$) and the experimental group ($M = 28.03$, $SD = 7.4$; $t = -.33$, p −value = .74) after the intervention had taken place. It is not clear that there is a significant difference here because I am looking at things separately.

When having a two-group pre-test/post-test design, scores on the pre-test may be taken as a covariate "to control for pre-existing differences between the groups" (Pallant, 2010, p. 298). ANCOVA tests are useful when having a rather small sample as well as when it is not possible to randomly assign students to two groups (ibid). Dörnyei (2007) also states that "there is a growing recognition that ANCOVA offers more precise results" due to two reasons: one is that many methodologists "claim that gain scores are not sufficiently reliable," and second is that it helps reduce initial group differences, particularly in quasi-experimental studies (p. 118).

When the results of the TOEFL test were combined in an analysis of covariance (ANCOVA), some difference between the two groups on post-test listening scores emerged. The ANCOVA explains whether the post-test scores vary by group, comparison or experimental, having accounted for pre-test scores. After adjusting for the pre-test scores, there was a significant difference in the listening test results between the comparison ($M = 26.31$) and the experimental group ($M = 29.45$) on the listening post- test, $F = 4.25$, p −value = .05, adjusted R squared = .41. Hence, in this

case, 41.1% of variance in the post-test is explained by group. This result indicates that if I comparison for baseline scores, the post-test scores are higher for the experimental group by three marks, as shown by the means.

4.2.2   The MALQ

The MALQ results were also entered into SPSS for statistical analysis, as mentioned above. Similar to what has been mentioned in Section 4.2.1 above, I ran a test of normality on the MALQ results. As the results were normally distributed for both groups, I used a parametric test, *t* test, to compare the results of the two groups. The *t* test was also used to compare results of each of the two groups at different points in time. In regards to using a parametric test for analysing ordinal data, Muijs (2011) states that "many researchers have used *t* tests for ordinal variables . . . and the test is reasonably robust in these circumstances" (p. 119).

I was provided with the MALQ scoring guide by Vandergrift (personal communication). This scoring guide helped to identify the statements in the questionnaire which had to be reverse-coded before entering the data into SPSS because lower scores are desirable for these items. I present below the results of analysing the MALQ first for each group separately, and then the results for the two groups combined.

4.2.2.1 Experimental Group MALQ Results

A paired-samples *t* test was conducted to assess the effect of the metacognitive instruction phase on the participants' level of metacognitive knowledge. There was a statistically significant difference in the students' metacognitive knowledge from Time 1, before the study, ($M = 2.72$, $SD = .19$), to Time 2, after the first phase of the study, ($M = 2.91$, $SD = .22$), $t = -3.68$, p -value= .00. This is an indication that the first phase of the study had a positive effect on the participants' level of metacognitive knowledge. In terms of the five factors of the MALQ, Table 4.2 below indicates that there was a statistically significant difference in Factor 1, planning/evaluation, from before the metacognitive instruction phase to after it. This

result indicates that phase one had a positive effect particularly on planning and evaluation strategies.

Factor	Questionnaire	Mean	Standard Deviation	t value	p-value
Factor 1 (Planning / Evaluation)	Pre	2.73	.45	-2.19	.04*
	End of 1st phase	2.96	.35		
Factor 2 (Problem-Solving)	Pre	3.10	.24	.53	.60
	End of 1st phase	3.07	.33		
Factor 3 (Person Knowledge)	Pre	2.02	.53	-1.23	.23
	End of 1st phase	2.17	.71		
Factor 4 (Directed Attention)	Pre	3.07	.39	-1.55	.14
	End of 1st phase	3.29	.41		
Factor 5 (Mental Translation)	Pre	2.66	.57	1.19	.25
	End of 1st phase	2.5	.54		

Table 4.2 EG MALQ Factors *t* test Results (Time 1 & Time 2)

A paired-samples *t* test was also carried out to measure the impact of the second phase of the study on the participants' level of metacognitive knowledge. There was no statistically significant difference in the students' metacognitive knowledge from Time 2 (M = 2.91, SD = .21) to Time 3, by the end of this phase, which is also the end of the study, (M = 2.99, SD = .33), t = -1.44, p -value= .17. As for the five factors of the MALQ, there was no significant difference in any of the factors from Time 2 to Time 3. Table 4.3 below indicates that the mean scores of Factors 2, 3, and 4 have increased, yet the difference was not statistically significant in any of them.

Factor	Questionnaire	Mean	Standard Deviation	t value	p-value
Factor 1 (Planning / Evaluation)	End of 1st phase	2.96	.35	.08	.93
	Post	2.96	.45		
Factor 2 (Problem-Solving)	End of 1st phase	3.07	.33	-2.09	.53
	Post	3.21	.33		
Factor 3 (Person Knowledge)	End of 1st phase	2.17	.71	-1.31	.21
	Post	2.33	.63		
Factor 4 (Directed Attention)	End of 1st phase	3.29	.41	-1.36	.19
	Post	3.42	.48		
Factor 5 (Mental Translation)	End of 1st phase	2.5	.54	-.56	.58
	Post	2.56	.51		

Table 4.3 EG MALQ Factors *t* test Results (Time 2 & Time 3)

A paired-samples *t* test was also conducted to evaluate the impact of the intervention in general on the experimental group's level of metacognitive knowledge, as measured through the MALQ. There was a significant difference in the participants' metacognitive knowledge from Time 1, before the study, ($M = 2.72$, $SD = .19$), to Time 3, by the end of the study, ($M = 2.99$, $SD = .33$), $t = -3.35$, *p*-value = .00. This suggests that the metacognitive knowledge of the participants in the experimental group has developed over the course of the study.

Regarding the five factors of the MALQ individually, as presented in Table 4.4 below, there was a statistically significant difference in two factors: Factor 3 (Person Knowledge) and Factor 4 (Directed Attention) have significantly increased from Time 1 to Time 3. The mean scores for Factor 5 (mental translation) indicate a decrease, rather than an increase, in the students' use of strategies which fall under this factor, but the difference was not statistically significant. The mean scores also

indicate an increase in Factors 1 and 2, yet the difference in these two factors did not reach statistical significance.

Factor	Questionnaire	Mean	Standard Deviation	t value	p-value
Factor 1 (Planning / Evaluation)	Pre	2.73	.45	-1.56	.13
	Post	2.96	.45		
Factor 2 (Problem-Solving)	Pre	3.10	.24	-1.21	.24
	Post	3.21	.33		
Factor 3 (Person Knowledge)	Pre	2.02	.53	-2.21	.04*
	Post	2.33	.63		
Factor 4 (Directed Attention)	Pre	3.07	.39	-2.58	.02*
	Post	3.42	.48		
Factor 5 (Mental Translation)	Pre	2.66	.57	1.00	.33
	Post	2.56	.51		

Table 4.4 EG MALQ Factors *t* test Results (Time 1 & Time 3)

4.2.2.2 Comparison Group MALQ Results

A paired-samples *t* test was conducted to compare the MALQ results of the comparison group ($n = 20$) before and after the study took place. As one student in the comparison group did not complete the pre–questionnaire, she had to be excluded from the MALQ paired-samples *t* test. There was a significant difference in the students' metacognitive knowledge before ($M = 2.82$, $SD = .20$) and after the study ($M = 2.73$, $SD = .31$), $t = 2.21$, *p*-value $= .03$. However, as the mean values indicate, this was a decrease, rather than an increase in their MALQ results.

Regarding the five factors of the MALQ, as Table 4.5 below demonstrates, all of the Factors, except for Factor 1, witnessed a decrease from Time 1 to Time 3.

Factor	Questionnaire	Mean	Standard Deviation	t	p-value
Factor 1 (Planning / Evaluation)	Pre	2.77	.39	1.03	.31
	Post	2.71	.38		
Factor 2 (Problem-Solving)	Pre	3.27	.38	2.03	.06
	Post	3.10	.39		
Factor 3 (Person Knowledge)	Pre	2.35	.71	1.32	.20
	Post	2.21	.68		
Factor 4 (Directed Attention)	Pre	3.00	.29	.30	.76
	Post	2.97	.32		
Factor 5 (Mental Translation)	Pre	2.75	.62	.82	.41
	Post	2.65	.65		

Table 4.5 CG MALQ Factors t test Results

4.2.2.3 MALQ Results Compared

An independent-samples t test was conducted to compare the pre-questionnaire results for the two groups. There was no statistically significant difference in metacognitive knowledge, as measured by the MALQ, for the comparison group ($M = 2.83$, $SD = .21$) and the experimental group ($M = 2.72$, $SD = .19$), $t = 1.58$, $p -$ value $= .12$. This is an indication that students in the two groups were at similar metacognitive knowledge level before the start of the study.

An independent-samples t test was also conducted to compare the metacognitive knowledge level of the participants in the two groups after the study was carried out.

There was a statistically significant difference in metacognitive knowledge, as reflected in the post-MALQ scores, between the comparison group (M = 2.73, SD = .31) and the experimental group (M = 2.99, SD = .34), t = -2.43, p-value = .02. This result suggests that the experimental group have outperformed the comparison group on the final MALQ. Further, having controlled for pre-questionnaire scores for the two groups, there was a statistically significant difference in metacognitive knowledge, as measured by the MALQ, between the comparison group (M = 2.6) and the experimental group (M = 2.9) on the final MALQ results, F = 10.96, p-value = .00, adjusted R squared = .38. This indicates that 38.4% of the variance in the post-questionnaire results is explained by group. Results also signify that by controlling for baseline MALQ results, the post-questionnaire results for the experimental group are higher.

4.3   Qualitative Data Analysis

The qualitative data was generated in this study through the listening guided diaries used in both phases of the intervention. As mentioned previously, I gave the participants the freedom to write in their diaries in either language they felt more comfortable with (see Section 3.6.2). As a result, the data generated from the diaries were a mixture of both Arabic and English. The issue of having data that is in a language other than English is largely overlooked in the literature on qualitative methods (Nikander, 2008). To deal with this issue, however, I followed the suggestion made in the literature which states that "the actual analysis on any translated data is always done on the original" (Nikander, 2008, p. 229). Thus, I analysed the data as they occurred in the students' diaries, without any translation and had the coding verified by a colleague competent in both languages.

A key element of qualitative data analysis is data reduction, which is commonly achieved through content analysis (Cohen et al., 2011). Content analysis is defined as "a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding" (Stemler, 2001). Content analysis according to Denscombe (2010) is a means of "quantifying the contents" of any text (p.281). Silverman (2006) explains that when applying content analysis, a

researcher starts by establishing "a set of categories" and moves on to counting "the number of instances that fall into each category" (p.159). The procedure followed when applying content analysis, as Denscombe (2010) states, includes:

- selecting a suitable sample of texts,

- breaking down the data into smaller units,

- developing relevant categories for the analysis of the data,

- coding the identified units in line with the categories,

- counting the frequency of occurrence of these units,

- and finally analysing the text in the light of the frequency of the units and their relationship with other units that occur in the text (p.282).

The texts selected for analysis in my case were the students' listening diary responses generated from the two phases of the study. I decided to do the analysis manually, rather than using computer software. I chose to hand-analyze the data for a number of reasons; one is that the database analyzed is relatively small, and hence I can "easily keep track of files and locate text passages" (Creswell, 2005, p. 234). Furthermore, according to Creswell, one of the reasons for deciding to do the analysis by hand is "to be close to the data and have a hands-on feel for it without the intrusion of a machine" (ibid). I will first present the steps I followed to prepare the data for analysis. Then, the following part will shed light on the coding schemes used to code the data and how the actual data analysis was carried out.

4.3.1 Preparing Data for Analysis

The students' listening diaries were a collection of loose A4 papers. Each student, as mentioned in the previous chapter, completed on average two diaries per session, apart from phase one in which only one diary per session was completed. Based on the number of texts played in each session (see Section 3.7.2), I had around 378 diaries by the end of the intervention. I decided to analyse the diaries for the two phases separately. Hence, to prepare the data for analysis, I started with transcribing the diaries of the first phase, the metacognitive instruction phase, as they occurred by typing the diary entries for all three sessions for each participant together in one

section before moving to the other student. These files included the session number, topic, and answers to the four diary probes. By transcribing I mean I transferred data in the students' diaries from the loose A4 papers into a word-processed file that contained the diary responses for all the participants. After transcribing the data, I had a read through it for exploration, which is one way of "preliminary exploratory analysis", to use the term given by Creswell (2005, p. 237). I realized, as a result of this step, that the format in which the data were presented was not fit for analysis. As a result, I transformed the diaries into table format, with the following sub-headings: session/ topic, question, answer, theme and memo. Following Bernard and Ryan (2010), I developed a codebook based on three types of codes: first, structural codes, which included information on the topic of the text, and the number of the diary probe being answered. Second were the theme codes which show where the themes identified actually occurred in a text, in this case it was the students' answers to the diary probes. Finally, the memos include notes and commentaries about the codes written as I read through the texts.

I read through the codebook, and then I realized I had to change the order of the diary responses in the tables. This time, I grouped responses to each probe together, so the order was according to probe rather than session now. This was done so I could do the analysis probe-wise, rather than session-wise. The first time I attempted the analysis was in a bottom-up method, in a sense that I moved from sub-categories, using the coding scheme by Goh (1997) (see Appendix J), up to categories. This approach was to a certain extent a struggle and I was left with quite a number of responses unclassified. Therefore, I had to change the way I did the analysis. The second time I attempted the analysis, I reversed the approach, following a top-down method in which I moved from category to sub-category. Creswell's advice to "start broad to narrow" (2005) was a better way of doing the analysis. To achieve this broad to narrow approach, I had to change the sub-headings in the codebook to include *category* and *sub-category*, rather than *theme*, which was the sub-heading used in the first draft of the codebook (see Appendix L for the final version of the codebook format). The same codebook format was used for analysing diaries of the two phases.

In the next stage, I attempted to unitize the participants' answers by putting each unit I identified on a separate line. I adopt the definition given by Krippendorff (2004) of units, which according to him are "wholes that analysts distinguish and treat as independent elements" (p. 97). The idea of wholeness of a single unit indicates that "it is not further divided in the course of an analysis or at a particular stage of an analysis" (ibid).

4.3.2   Phase One Qualitative Data Analysis

The three types of metacognitive knowledge: person, task and strategy knowledge, were the guiding framework for analysing the students' answers to the listening diary probes in phase one (see Table 2.1 for definitions). Following Vandergrift (2002), the student diaries were analysed for evidence of the three types of metacognitive knowledge. To further analyse the listening diaries, I used the inventory of metacognitive knowledge about L2 listening developed in a study by Goh (1998), and summarized in another article by her (Goh, 1997). Goh has further classified these three types of metacognitive knowledge into categories and sub-categories; hence I followed her coding scheme to identify instances of these types of metacognitive knowledge (see Appendix J). However, in line with Vandergrift (2002), examples of strategic knowledge had to be "further analysed for evidence of metacognitive strategies for second language listening" (p. 565). For this purpose, I used the taxonomy elaborated by Vandergrift (1997a), which according to him is grounded in cognitive psychology and builds on the language learning strategy classification scheme by O'Malley and Chamot (1990) (see Appendix K).

First, I classified the units of analysis under one of the three types of metacognitive knowledge. I did this step for the second guided question in the listening diary: 'why did you find the task easy or difficult?', across the three sessions. Then I went back to the responses under probe two in order to further sub-categorize them using Goh's coding scheme. These two steps were then carried out in the same order for the third guided probe in the listening diary: 'what has helped you to understand?', and later for the fourth guided question, which was 'what will you do different next time?' For the fourth probe, as mentioned above, I had to also use the taxonomy of

listening strategies which was developed by Vandergrift (1997a). I relied on abbreviations when doing the categorization and sub-categorization. For example, I used TK to refer to task knowledge, PK for person knowledge, and SK for strategy knowledge. As for the sub-categories, I used numbers and letters, like 1/e to refer to (1) factors that affect listening and (e) for types of input, which are all based on the coding scheme given by Goh (see Appendix L as a sample for the analysis). I also used coloured pens to differentiate between the various categories and sub-categories. When it came to counting the instances, I used a pencil to cross out the answers that have been counted. This would make it easier for me to identify in a glance the codes that remained to be quantified. I then used a highlighter to further mark any units that remained unclassified. I gathered those units that did not seem to fall under any of the codes for further investigation. Then, I created tables to summarize each type of metacognitive knowledge elicited by the diary probes. This table included the sub-categories identified in the participants' responses. These tables are presented in sections below.

One of the most challenging aspects of analysing the qualitative data, however, was identifying and categorizing the data in the guided listening diaries. Even though I decided to use a pre-defined coding scheme, still boundaries between categories were not always easy to identify. Vandergrift (2002) also acknowledges the overlap that exists between these types of metacognitive knowledge as reflected in his participants' responses. Before turning to the actual analysis, I will first present the challenges I faced when categorizing the data and the decisions I had to take in regards to each one of these challenges.

4.3.2.1 Phase One Challenges and Decisions

While doing the analysis, I faced many challenges which required me to take informed decisions as to how some of the responses may be classified. The boundaries in some of the students' responses were not clear enough, therefore, I had to decide on how to classify such units and justify each decision. Hence, each time I faced a response that did not lend itself easily to the coding schemes, or had any obscurity in it, I had to deal with it on the spot. The decision taken was written

on a post-it-note and put on an A4 blank sheet to keep all decisions visible in front of me for further reference as an attempt to achieve consistency.

Similar to Goh (1998), coding the data on metacognitive knowledge was one of the most challenging stages in my research. There were instances where items that had been placed within a particular group seemed to easily fit into another group. The criteria I used when taking decisions may appear to be subjective at times, particularly when the distinction between two sub-categories depended on my own interpretation of the participants' responses. However, as Goh (1998) explains, by applying the same criteria consistently throughout the analysis, I attempted to ensure that there was some uniformity in the way my interpretation of the listening diaries had been categorised (p. 167). Goh states that "categorisation of qualitative data is by nature a subjective process and researchers do not make claims for the objectivity and completeness generally associated with scientific inquiry" (ibid: 170). I will now present the challenges I faced and the decisions taken with some extracts from students' responses.

1. Linking two idea units in a cause and effect form, through the use of words such as *so, that, which*, etc. I decided that, though the response had two idea units, I would treat them as one. The reason for dealing with such a challenge this way is that since one happens as a result of another, and that the two are directly related, it would be more logical not to separate them. All instances of cause and effect responses were indications of person knowledge, because the students related the demands or nature of the task to themselves as learners. This can be seen in the following extracts:

   Because the speaker was talking slowly so we had time to understand what he was saying

   Also, he was talking slowly which gave me enough time to take notes

   Informing us of the divisions of the lecture before giving the details helps us to concentrate more

   The speaker was giving way too [many] information that I had a bit of difficulty [of] writing down my notes

2. The three sub-categories in Goh's coding scheme, problems during listening and obstacles to listening comprehension, both under person knowledge, and factors that affect listening comprehension, under task knowledge, all shared one common feature, that of "what the subjects thought were hindrances to their listening comprehension" (Goh, 1998, p. 166). Goh provides the following definitions for the two subcategories of problems and factors. Problems during listening, she says, "would refer to any difficulties the subjects had experienced and that related directly to one of the three cognitive phases of comprehension, namely perceptual processing, parsing and utilisation". Factors that affect listening comprehension, on the other hand, "would refer to anything that the subjects perceived could either impede or enhance their comprehension" (ibid: 167). I found it inconsistent that Goh defines factors that affect listening comprehension to include those that could "impede" or "enhance" listening comprehension and then mentions only "unfamiliar vocabulary" to the exclusion of familiar vocabulary, which I believe is also a factor playing a significant role in enhancing listening comprehension. The challenge was that participants would many times refer to the same idea but use words like *easy*, *difficult*, *familiar*, *new*, *clear*, rather than unfamiliar vocabulary. Therefore, since all of these comments on vocabulary are, in my point of view, among the factors that affect listening comprehension, and are a comment on the familiarity, or not, of the vocabulary to the learners, hence I decided to treat them all under the same sub-category: (un)familiar vocabulary. The following are examples from students' responses:

> *Because it did not include any new words*
> *Clear vocabulary*
> *There was not any hard words*
> *Words used in the text are clear and understandable*
> *Without difficult vocabulary*

3. The participants used many ways to comment on types of input, such as *the use of examples*, being *an easy topic*, using *an easy/ clear style*, *the lecture being well-organized*, etc. Since these, in my point of view, all indicate the

same idea, I decided to treat them all as a comment on types of input. Examples from participants' responses are:

the topic was easy

the lecturer's style was easy

the lecturer gave some examples to aid understanding

the lecture was organized

4. I had a problem in classifying the response *because the talk was very clear*, since it did not seem to lend itself clearly to any of the sub-categories. I decided finally to group it under speech rate, as the sentence seemed to suggest reference to the speed of the speaker.

5. There was another comment that was not easily classified, which is *because of the speaker's clear pronunciation*, as there was no clear reference to pronunciation in the coding scheme. However, since pronunciation falls under accent, I decided to group this response under the code: different varieties and local accents.

6. Another unclear response was *it was clear*, which occurred as an answer to why did you find the text easy? I found this somehow problematic, since I was unsure whether clear here means clear ideas or clear voice. However, since the sentence 'the text was clear' is taken to mean clear ideas, rather than voice, hence I decided to group this response under types of input.

7. Some responses stated *clarity of voice and tone* as one of the reasons why the text was found easy, or difficult. This appeared at first to be one unit, but then I came to realize that *clear voice* was used by participants to refer to the quality of the recording. Hence, I decided to break this response down into two units, *clear voice* fell under physical factors, whereas *clear tone* under prosodic features. Both, however, fall under the category 'factors that affect listening comprehension', which comes under task knowledge.

8. Another issue I faced was that there was no category in Goh's coding scheme that related the listening text to the required task, although this is a common factor which affects listening comprehension; difficulty of the task. In other words, many times have participants indicated that one of the things that has helped them to understand or to find the text easy was the *simplicity of the task* or *simple questions*. This did not seem to belong anywhere in the coding scheme! However, since task knowledge refers to the demands of a task, I decided to include it under task knowledge. Therefore, I decided to create a new category under factors that affect listening comprehension, with the code 'difficulty of the task'.

9. Comments on familiar vocabulary caused me some confusion as well since this element appeared under task knowledge and person knowledge in Goh's coding scheme. Hence, I needed to make the boundaries more vivid between these two codes. The decision was that if the participant attributed it to herself, e.g. saying *some of the words I know*, then it would be considered under person knowledge. On the other hand, if it was written as a general comment on vocabulary, then I considered it as task knowledge.

10. I had a major issue with classifying responses related to previous knowledge and having some background knowledge related to the topic of the listening text. Goh's coding scheme classifies it under task knowledge, as one of the factors that affect listening comprehension. Yet, from my point of view, it may be better grouped under person knowledge because it is a characteristic of the person, having information related to the text rather than the task itself. This leads to another relevant issue, which is distinguishing between common topics and having background knowledge related to the topic. Not every common topic do students have some information about, hence I decided to treat them as two separate units. The latter falls under person knowledge whereas the former belongs under task knowledge. Goh in fact in the original study (Goh, 1998) identifies "insufficient prior knowledge" as one cause of problems during listening, as part of her discussion on person knowledge of

her participants (p. 346). This again indicates how fuzzy the boundaries are between the different types of metacognitive knowledge.

These were the main challenges which occurred when analysing phase one diaries and decisions in regards to them had to be established before presenting the results of the analysis. The following part will present the results of the analysis and will be divided into three major sections according to the three probes in the guided listening diary: probes 2, 3, and 4. Since the first probe in the diaries was an either/or question: 'did you find the task easy, difficult or neither of the two?', and this probe was directly related to the second probe, I decided to merge these two questions into one section and do the analysis for them simultaneously. The types of metacognitive knowledge elicited by each diary probe will be presented under each major section. This will first be summarized in table format and then major themes will be presented separately, accompanied by illustrative examples from the participants' diaries.

4.3.2.2 Diary Probes (1) & (2): Did you find the task easy or difficult? Why?

As stated previously in Table 3.2, the first two diary probes helped elicit two types of metacognitive knowledge: person and task knowledge. Hence, the following section of the results will be divided into two main parts, one for each of these two types of metacognitive knowledge. According to Goh (1998), task knowledge "includes the ability to recognise that some tasks are more demanding than others and to discern whether a particular task is easy or hard" (p. 347). Thus, question number one in the guided listening diaries elicited task knowledge, by having students decide on whether they found the listening text easy or difficult. Regarding session one, which was on *Second Language Acquisition*, the majority of participants thought the text was easy: 15 out of 19 responses, one said it *was easy but not very easy*, one said it was *somehow easy*, while two others thought it was of *medium difficulty*. The second session, on *Sleep Deprivation*, was also thought to be easy by the majority of participants: 16 out of 19 responses. One participant said the text was *neither hard nor easy*, one said it was of *medium difficulty* and one said it was *easy to some extent*. The third session, on *Business*, was thought to be easy by nearly half of the participants: 10 out of 18 responses. Three students thought the

text was of *medium difficulty*, one said it was *kind of easy,* one said it was *difficult*, and one wrote *kind of* with no clear indication of whether it was kind of easy or kind of difficult. This final session witnessed a decrease in the number of participants who thought the text was easy compared to the two previous sessions.

Even though the initial number of participants in the experimental group was 21, there were some absentees in some sessions, hence the difference in numbers throughout the three sessions. The following part will summarize the results of the participants' responses to the second probe, which elicited task and person knowledge, as previously stated. Table 4.6 below summarizes the idea units, and types of metacognitive knowledge elicited from student responses to probe 2 in each session.

Session	Idea units	Not relevant	Task Knowledge	Person Knowledge
1	31	1	28	3
2	34	--	31	3
3	31	1	27	4
Total	96	2	86 (90%)	10 (10%)

Table 4.6 Phase 1: Summary of Probe 2 Categories

I will now present the information in Table 4.6 above in more details. Due to its prevalence, I will start by presenting results relevant to task knowledge.

- Task Knowledge: Probe 2

The key words that I based my categorization on in regards to task knowledge were purpose, demands, nature and procedures of tasks, which all stem from the definition of task knowledge given by Goh (1998). Focusing on these four key words helped in identifying the responses which belonged under task knowledge and those which did not. Table 4.7 below indicates that 10 sub-categories of task knowledge have been found in the participants' responses to probe two across the three sessions of phase one. The table also illustrates that all of these instances fall

under the broad category of factors that affect listening comprehension, according to Goh's coding scheme (see Appendix J). The total numbers reveal the session that witnessed the most instances of task knowledge, in this case session two. It also clarifies the most frequent sub-categories identified in the participants' responses. These included comments on the familiarity of the vocabulary in the listening text, (* indicates the extract was originally in Arabic and has been translated for the purpose of illustration), such as:

> *Because it does not include any new words ***
> *And there was not any hard words*
> *Because the lecturer used easy to understand terms***
> *Without difficult vocabulary*
> *Simple word*

Also, statements on types of input and the role they play as a factor affecting listening comprehension was a major theme here. Instances included:

> *The topic was easy*
> *The style of the lecturer was easy***
> *Examples ***
> *The lecture was organized*

Another theme that emerged here was the impact of existing knowledge and experience on viewing the listening text as easy or difficult. Some of the participants' responses included:

> *The text was familiar ***
> *Because sleep issue most (of) people have it*
> *It talks about a common topic***

Speech rate was another theme identified by participants' as one of the factors that have led them to finding the text easy or difficult. The following are samples from students' diaries:

> *And the speed of the speaker*
> *Because the speed of the speaker was normal*
> *Not fast paced*

Plus he wasn't fast

Sub-category	session 1	session 2	session 3	Total
1. (un)familiar vocabulary	7	7	6	20
2. Types of input	6	8	5	19
3. Existing knowledge & experience	7	9	2	18
4. Speech rate	4	3	2	9
5. Different varieties & local accents	1	3	2	6
6. Physical factors	1	--	3	4
7. Difficulty of the task	--	1	3	4
8. Length & structure of sentences	--	--	2	2
9. Emotional states	1	--	--	1
10. Interest in a topic	1	--	--	1
Total	**28**	**31**	**25**	**84**

Table 4.7 Task Knowledge: Probe 2

Table 4.7 above shows the rest of the sub-categories that emerged from the students' responses to this diary probe. However, due to their low frequency, I did not regard them as major themes and thus do not expand on them here.

- Person Knowledge: Probe 2

The definition of person knowledge includes "general knowledge learners have acquired about human factors that facilitate or inhibit learning" (Wenden, 1998, p. 518), yet Goh in her coding scheme only identifies obstacles and problems to listening comprehension. Based on this definition of person knowledge, I decided to expand the categories in Goh's coding scheme to include, not just obstacles, but also aids to listening comprehension. I also included under obstacles and aids to listening

comprehension, the sub-category background knowledge which did not appear in Goh's coding scheme (based on decision 10, see Section 4.3.2.1).

Sub-category	session 1	session 2	session 3	Total
1. Obstacles/ aids to listening comprehension				
a) Background knowledge	--	--	3	3
b) (un)limited vocabulary & academic terms	1	1	1	3
c) Fast speech	2	--	--	2
d) Inefficient memory	--	1	--	1
2. Cognitive Processes during listening				
a) Reconstruct meaning from words heard	--	1	--	1
Total	**3**	**3**	**4**	**10**

Table 4.8 Person Knowledge: Probe 2

Table 4.8 above illustrates the instances of person knowledge that appeared in the participants' diaries in response to probe 2. The table also shows that background knowledge, as an aid to listening comprehension, was the major category elicited from the students. Instances from the actual diary entries include:

> *Because it talked about something that I know*
> *I had previously listened and read a lot about it ***
> *Because the speaker was talking about something I don't have much knowledge about*

However, as Table 4.6 above indicates, probe two elicited a lot more instances of task knowledge than those of person knowledge.

4.3.2.3 Diary Probe (3): What has helped you to understand?

Diary probe 3, 'what has helped you to understand?', led to the elicitation of strategic knowledge, which did not emerge previously in reply to probes one and two. This probe elicited instances of task knowledge and person knowledge as well. Table 4.9 summarizes these three types of metacognitive knowledge as they occurred across phase one three sessions.

Session	Idea units	Not relevant	Task Knowledge	Person Knowledge	Strategy Knowledge
1	32	1	20	5	7
2	36	3	17	7	12
3	26	3	15	1	10
Total	94	7	52	13	29

Table 4.9 Phase 1: Summary of Probe 3 Categories

The following part will illustrate these three types of metacognitive knowledge as they appeared in the participants' diaries. I start with the most frequent one which is task knowledge.

- Task knowledge: Probe 3

All instances of task knowledge that were elicited by the third probe in the listening diaries were sub-categories of factors that affect listening comprehension, according to Goh's coding scheme. This is similar to what has occurred in the participants' responses to probe two. Table 4.10 below indicates that the most frequent occurrences of task knowledge emerged in the first session. The most prominent theme occurring here was 'types of input', with 50% of the total responses that fell under task knowledge. The fact that so many responses related to types of input as a factor affecting their comprehension indicates it was a common perception among the participants. Some of the students' actual responses included:

The examples that the lecturer give

*Clear examples **

The definitions, example that they given

And the kind of topic

*The organization of the lecture**

Sub-category	session 1	session 2	session 3	Total
1. Types of input	10	7	9	26
2. (Un)familiar vocabulary	3	1	3	7
3. Different varieties and local accents	2	3	2	7
4. Speech rate	3	1	--	4
5. Prosodic features	1	1	1	3
6. Physical features	1	1	--	2
7. Difficulty/ simplicity of task or questions	--	2	--	2
8. Emotional states	--	1	--	1
Total	**20**	**17**	**15**	**52**

Table 4.10 Task Knowledge: Probe 3

There were also instances that commented on the vocabulary of the text, as well as the accent of the speaker. These two themes occurred as the second most frequent responses, with 13% for each sub-category. Table 4.10 above presents the other sub-categories of task knowledge that emerged in response to diary probe 3, but these sub-categories were not so frequent across the sessions.

- ▪ Strategy Knowledge: Probe 3

Most instances of strategy knowledge elicited by the probe "what has helped you to understand?" fell under strategies that assist comprehension and recall, according to Goh's coding scheme. Table 4.11 below illustrates the sub-categories that have been

identified in the diary entries and the number of occurrences for each per session. I treated the students' response 'to read the questions before listening' as a form of activating knowledge from context. Some instances of this theme are found in the following extracts:

*Reading questions before ***

Also the chance to read the questions beforehand

Sub-category	session 1	session 2	session 3	Total
1. Selective attention	2	3	4	9
2. Activate knowledge of context from title, questions, etc.	1	4	2	7
3. Directed Attention	2	2	2	6
4. Guess or infer meanings	--	2	1	3
5. Take notes	2	1	--	3
6. Pay attention to repetitions	--	--	1	1
Total	**7**	**12**	**10**	**29**

Table 4.11 Strategy Knowledge: Probe 3

Selective attention and directed attention were among the most frequent strategies used in response to this diary probe. Yet, they did not lend themselves easily to Goh's coding scheme, and were thus categorized under metacognitive strategies. Metacognitive strategies are defined by Goh (1998) as "manifestations of the executive dimension of metacognition" (p. 225). Metacognitive strategies are divided into three categories according to the role they play in managing cognition: planning, monitoring and evaluation (ibid). The literature on language learning strategies identifies a number of metacognitive strategies, which includes: pre-listening preparation, selective attention, directed attention, comprehension monitoring and comprehension evaluation" (Goh, 1998, p. 226). The first two fall under planning strategies, the following two under monitoring, and the last ones under evaluation. As mentioned previously, the taxonomy developed by Vandergrift

(1997a) formed the framework for identifying and categorizing metacognitive strategies (see Appendix K).

Most of the responses that fell under metacognitive strategies were examples of selective attention, which relates to noticing specific parts of input, that is in itself grouped under planning strategies, according to Vandergrift's taxonomy. The following are extracts from students' response illustrating this strategy:

> *Started (of) the main ideas first time, and second time (took) details*
>
> *Focus on what is required from the questions**
>
> *Following my strategies and understanding the questions and focus on what is necessary to answer them*
>
> *Focusing on the main ideas or details*
>
> *Reading and understanding the questions in the paper first, so I know the things that I need to concentrate on*
>
> *Key words*

Instances of directed attention were all manifested in responses that mention the word "*focus*" in general. Further, another response which did not belong under any of Goh's categories was an illustration of another planning strategy, labelled by Vandergrift as self-management. The following is the participants' response:

> *Getting prepared before listening**

There was one *no response* to probe three in session one. There was also another problematic response which was not easily classified, as it seemed to be a reply to probe four rather than this probe. The following is the problematic response:

> *Nothing, I would do better if I could read the questions before listening to the lecture, that will make me prepared better*

The student's response is quite awkward because they are always given the chance to read the questions before listening to the text. Hence, I decided to disregard this response.

▪ Person Knowledge: Probe 3

Table 4.12 below indicates that background knowledge, as an aid or obstacle to listening comprehension, emerged as the most frequent response by participants when asked about what has helped them to understand the text. Some extracts from the participants' diaries which illustrate this major theme included:

*The information I have from before **
*I have some previous information **
*Previous readings on the subject **
Some of the words and information that I know

Sub-category	session 1	session 2	session 3	Total
1. Obstacles/ aids to listening comprehension				
a) Background knowledge	4	6	1	11
b) (un)limited vocabulary & academic terms	1	1	--	2
Total	**5**	**7**	**1**	**13**

Table 4.12 Person Knowledge: Probe 3

4.3.2.4 Diary Probe (4): What will you do different next time?

Diary probe 4 helped ensure that the participants are "aware of what they can do to improve performance in future listening tasks (strategic knowledge)" (Vandergrift, 2002, p. 570). Table 4.13 below summarizes the idea units and student responses to this diary probe. However, comparing the number of idea units reported to this diary probe with those that occurred in response to the previous two diary probes (see Table 4.6 and Table 4.9) indicates a decrease in what students had to report.

Session	Idea units	Not relevant	Nothing/ don't know	No Response	Strategy Knowledge	Metacognitive Strategies
1	23	2	--	--	5	18
2	16	3	3	1	5	11
3	20	2	2	--	6	14
Total	**59**	**7**	**5**	**1**	**16**	**43**

Table 4.13 Phase 1: Summary of Probe 4 Categories

Hence, this probe mainly elicited strategic knowledge and metacognitive strategies. Table 4.14 below summarizes the strategy knowledge elicited by probe 4.

Sub-category	*session 1*	*session 2*	*session 3*	*Total*
1. **Take notes**	3	5	6	14
2. **Guess or infer meanings**	1	--	--	1
3. **Improve vocabulary**	1	--	--	1
Total	5	5	6	16

Table 4.14 Strategy Knowledge: Probe 4

Taking notes, including the use of abbreviations, occurred as the most frequent response in the students' diary probes. This is an indication of how much students rely on note-taking. Examples from the students' extracts included:

> *Try to write down all the information both main ideas and details after listening for the first time only*
>
> *Taking more notes*
>
> *Try to take notes just for main ideas*

Inferencing and improving vocabulary also occurred in the students' responses, but infrequently.

In terms of metacognitive strategies, Table 4.15 below indicates that the instances of metacognitive strategies which emerged in response to this probe fall under planning strategies. The four planning strategies identified by Vandergrift in his listening strategies taxonomy have all occurred throughout phase one three sessions. The most frequent responses, however, were instances of selective attention, for example:

Focusing more on the text to understand difficult words*

I will focus more on the words I did not understand*

I will focus on the main ideas in the text*

Sub-category	session 1	session 2	session 3	Total
1. **Selective attention**	9	6	8	23
2. **Directed attention**	5	1	3	9
3. **Self –management**	2	4	1	7
4. **Advance organization**	2	--	2	4
Total	18	11	14	43

Table 4.15 Metacognitive Strategies: Probe 4

Directed attention emerged as the second most frequent metacognitive strategy students think of using in future listening. Examples of this strategy included:

I will try to focus more*

Focusing hard*

Self-management strategies also emerged in response to this diary probe, for example:

I will try to improve myself more*

I will improve my listening skill more and more*

Try to be faster with abbreviation

This marked the final stage in the analysis of phase one guided diaries. I will now present an analysis of the open-ended questionnaire given to the participants by the end of this phase.

4.3.2.5 End of Phase One Questionnaire

As mentioned previously (see Section 3.6.1.2), I gave the students an open-ended questionnaire by the end of phase one for a number of purposes. One of these purposes was to find out the forms of English listening practice the participants do outside the class. Figure 4.1 below summarizes the students' responses.
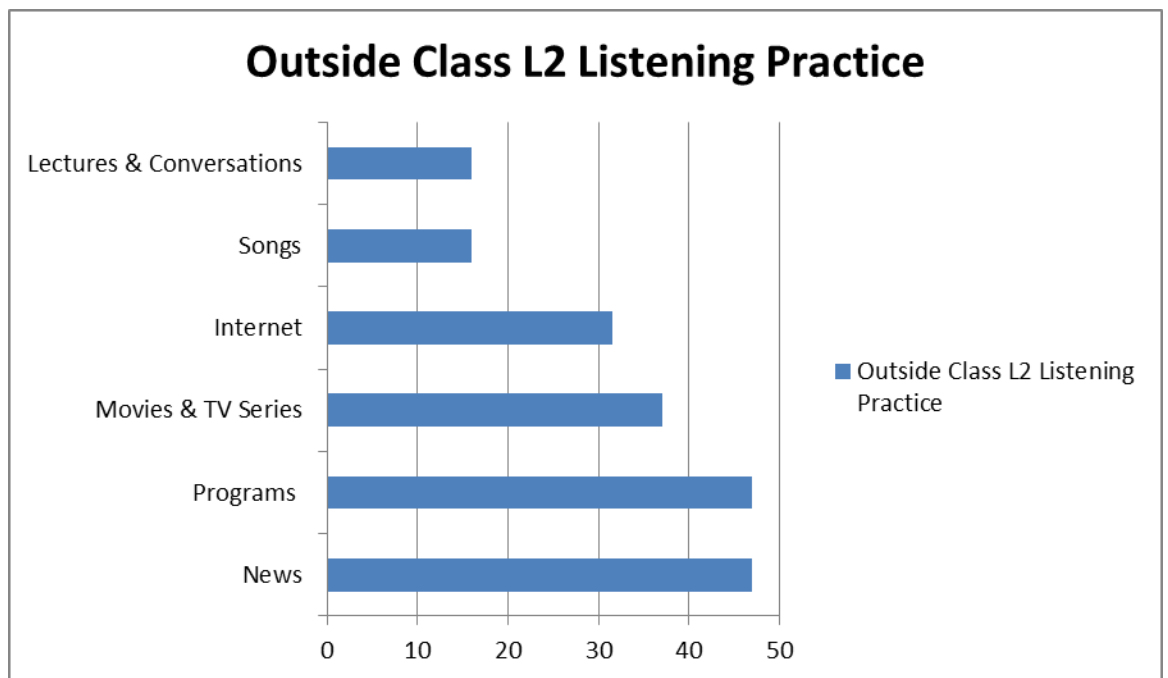
Figure 4.1 Participants' Forms of English Listening Practice

The students' responses to this questionnaire were mainly in Arabic; I provide a translated version of their responses (see Appendix F). When asked whether they sit and deliberately practise listening to English, 52% of the participants' answers were no. Three of them said they practise once a week, but did not mention for how long; one of them wrote:

once a week I listen to BBC until I get bored

One answered twice for half an hour, another participant said 2-3 times for an hour. Three participants stated that they practise for three hours or more per week. The participants' replies to this question indicate that the concept of deliberate practice is more or less absent from the way they engage in listening practice. They are unaware of the significance of regular practice that aims at improving level of performance, as opposed to listening for pleasure, as their answers suggest.

4.3.2.6 Reliability of Phase One Coding

To check reliability of the coding, one can measure the percent of agreement between two independent coders. "This involves simply adding up the number of cases that were coded the same way by the two raters and dividing by the total number of cases" (Stemler, 2001). Via one of my supervisors, I got a PhD colleague to check the coding of phase one diaries. I provided him with the two coding schemes and the diary responses in table format. I also gave him a sample of the way I have analysed diary probe 2 of session one for the purpose of illustration. There was agreement of 67% of the codes. The main points of divergence were relevant to the challenges and decisions. The points of disagreement were resolved through reconsidering as well as matching them according to the decisions I have taken when analyzing phase one diaries (see Section 4.3.2.1 above)

Similar to Goh (1998), I also attempted an intra-coder reliability check. Intra-coder reliability is defined by Goh as "the code-recode agreement by the researcher" (p. 171). I completed the first coding by July 2012 and left it aside for three months. Then, in October, I analysed the dairies again. I compared the two versions of categorizations. When the categorization in the two versions matched, I accepted the coding as final. When there were any differences, I reconsidered the categorizations and decided on the more suitable one.

4.3.3 Phase Two Qualitative Data Analysis

The main intent behind using diaries in the deliberate practice phase was, as mentioned previously, to uncover the participants' metacognitive knowledge.

However, when analysing the diary responses of phase two, I was also trying to find instances that indicate deliberate practice has actually taken place. I aimed to do this through investigating responses related to the main elements of deliberate practice (see Figure 2.2). To analyse the participants' responses to the diary probes in the light of deliberate practice, I wrote the diary probes and the elements of deliberate practice on one sheet of paper in order to sketch out which elements relate to each diary probe. As I was stepping into fresh territory, and there was no previous work in the literature to base my analysis on, this was a challenging task. However, at times this appeared to some extent easier than having to restrict my analysis to a pre-coding scheme.

The simple task I did of writing both deliberate practice elements and diary probes on one sheet of paper gave me an early idea of the themes I would expect to emerge from each diary probe. Diary probe one, 'what are the important things you did to understand the text you just heard?', apparently would lead to eliciting instances of motivation, concentration and listening strategies. The second diary probe, 'what did you do to check your listening comprehension?', would lead to responses related to the role of the teacher, feedback, and repetitions, as well as the use of listening strategies. The last diary probe, 'what problems did you have?', would lead to reflections on the task the participants have just carried out.

I first stabilized the answers to each diary probe for all six sessions together and started reading through the participants' replies. As I read and re-read the responses many times, I became aware of the major themes that were recurring under each diary probe. One general note was that the words *very well* and *carefully* reoccurred quite frequently in the participants' responses to diary probes in this phase of the study. Nearly 4.4% of the total idea units analysed in phase 2 diaries included instances like those. The use of such words, in my point of view, is in a way an indication of deliberate practice taking place. Some examples from the participants' replies include:

> *Read all the answers very carefully*
> *concentrate carefully*
> *focus very well*

had to listen to the speaker carefully

The following part will discuss the major themes that have emerged from the listening diaries of the deliberate practice phase. This will be done according to the three main diary probes used in the deliberate practice phase. The students' responses will be examined in the light of both deliberate practice elements as well as metacognitive knowledge.

4.3.3.1 Diary Probe 1: What are the important things you did to understand the text you just heard?

First, I focused on instances of motivation and concentration, which are the two essential elements for deliberate practice to take place. Although these two themes were the main focus of analysis initially, other themes also emerged from the participants' replies to this diary probe. By the end of analysing all responses to this diary probe, I was able to identify six major themes. Ordered in terms of frequency of occurrence, the themes identified included: selective attention, concentration, advance organization, note-taking, the use of background knowledge and motivation (see Appendix M for summary of Probe 2 analysis). I considered selective attention and concentration as two separate themes since deciding to attend to a particular aspect of the language input, selective attention, does not necessarily entail concentrating on the whole text and task. Hence, when the word focus or concentration was used generally, I regarded it as an instance of concentration, whereas when focus was restricted to certain aspects of the text or task, I considered it an instance of selective attention.

The following parts present results in the light of these six major themes, and are supported by extracts from the students' responses to this diary probe. The total number of responses to this diary probe across the six DP sessions was 347. Idea units entered for analysis made up 91% of responses, whereas irrelevant responses that were excluded from analysis were 8.9 %.

a. Theme 1: Selective Attention

Selective attention was the most recurring theme, with 34% of the total responses to diary probe 1 falling under this category. Some participants decided to focus their concentration on both main ideas and examples:

focusing on the main ideas and examples

While others chose to focus only on main ideas:

listen carefully to main ideas
concentrate on the main point

Other students decided to focus on key words in the texts:

concentrate on the key words of the lecture
underlined the key words that are in the questions

Certain parts or aspects of the input were the focus of some students:

focus on the introduction and conclusion
focusing on main ideas on the first listening, focusing on details on the second listening
focusing in the tone of the speaker's voice

Further, some students focused on questions in the accompanying tasks:

analyze the Qs and their possible meaning to determine where should my focus be
focus on the questions
depending on the choices we have in the questions
focus on what needs to be completed

b. Theme 2: Directed Attention (Concentration)

Concentration in general was the second major theme that emerged from this part of the data, with 16% of responses to this probe falling under this category. This was expressed by participants in a number of ways, including:

focus and listen carefully

focusing on their conversation

I tried my best to get all information

I concentrated as much as I can

listen carefully, I didn't think about anything else

listened carefully to the lecture

concentrated very well

[فقط ركزت على المحادثة بين الطالب والاستاذ]

I only concentrated on the conversation between the student and tutor*

Listen good

I just focus on everything they said because most of the words are familiar and nothing new. So, I think the easy words help me to understand it

[حاولت أوجه كل تركيزي للمحاضرة]*I tried to direct all my attention to the lecture**

    c.   Theme 3: Advance Organization

The third theme emerging from the data was advance organization, which means setting objectives for the task in hand and thinking of ways to handle it. 16% of the instances throughout the sessions fell under this category. Examples from the participants' diaries included:

prepare the main ideas of the text before I read

try to answer the questions before I listen and think about what I will listen to

read the question first

some questions and answers when I read it before conversation began

read the question before listening so that I can get some ideas about the information that I will hear

As the previous extracts illustrate, most instances of advance organization relied on reading comprehension questions before attending to the listening.

d. Theme 4: Note-taking

Taking notes while listening was the fourth theme which emerged from the data, with 12% of instances indicating that participants relied on the notes they had taken to understand the listening texts. Examples from the students' diaries included:

> *try to write details as much as possible*
>
> *take notes, write main idea and important details*
>
> *write down the important info that I need*
>
> *Writing down notes and some information to help me write the summary*

e. Theme 5: Making Use of Background Knowledge

The following theme that appeared in the data was making use of background knowledge in order to understand the listening text. This made up 9% of responses to this particular diary probe. Examples included:

> *I made a connection between what I heard and the background information that I have*
>
> *try to remember any information about the topic*
>
> *my general information*
>
> *maybe because I had like this experience*
>
> [بالاعتماد على الخلفية التي لدي عن موضوع النص] *by depending on the background knowledge I have on the topic of the text**
>
> *remembering info that I had about the topic*
>
> *using my information because it's easy lecture and it's experience from our life*

f. Theme 6: Motivation

The final major theme emerging from diary responses to this particular probe was motivation, with 6% of responses across the sessions. Extracts from the participants' diaries included:

> [حاولت أشجع نفسي] *I tried to encourage myself **
>
> *I motivate myself*
>
> *I motivated myself to do the good*
>
> *Actually the 2 main things are the motivation and concentration*

There were other instances of strategies that some individuals mentioned using in their attempt to understand the listening texts. However, these did not occur frequently in the diary responses, hence I did not regard them as major themes. These include:

- Guessing

guessing the answers

guess something about the conversation

Before decide which answer is correct, guess the one you think it's true

- Deduction

use the word I know to guess the meaning of unknown words

Reading the question to understand new words

- Predictions

I made predictions about what I'm going to listen to

- Recall

to recall all the things I have listen

- Outline

write a simple outline to understand and organize the points I heard

by make the text that we listen as outline

- Activating schema from topic

because I read the topic of the lecture which is opportunity cost and the field of the lecture (economic) so that help me to understand the main ideas

- Visualization

Imagine the facts related to animals

Visualizing the event while listening* [تصور الحدث أثناء الاستماع]

- Translation

Tried to translate some difficult words

Some participants apparently misunderstood this diary probe; hence I had to disregard their answers. When reading through the responses, any reply that did not answer the probe was labelled *not*. 9% of the student responses to this dairy probe were not relevant, and hence were excluded from the analysis. Some examples included:

The great effect that video game have on children
I understood it all
Student confused about her assignment
There are easy details

Also, some participants mentioned *listen again* as one of the important things they did to understand the text. However, this response had to be disregarded since it was not in their hands whether to listen to the text again or not; it was the teacher's decision whether to play the CD once or twice.

4.3.3.2 Diary Probe 2: What did you do to check your listening comprehension?

The answers given by participants to this diary probe can be classified mainly into two groups; one is replies associated with elements of deliberate practice, while the other relates to replies reflecting some use of strategies to verify comprehension. The former includes the following categories: concentration, teacher, task, and repetitions. The latter, on the other hand, includes categories such as: note-taking, use of background knowledge, comparing and connecting information, recalling, logic and evaluation, and finally visualization. There are obviously some overlaps between the two groups. Therefore, I will present the results according to frequency of occurrence regardless of group, starting with the category that had the highest

number of instances across the six deliberate practice sessions, regardless of whether it was an instance of DP element or listening strategy.

The total number of responses to this diary probe across the six DP sessions is 259. Idea units entered for analysis made up 77.2% of the responses, while irrelevant responses that had to be excluded from analysis were 22.7%. Appendix N presents a summary of all the categories that emerged from the participants' responses to diary probe 2, the total number of occurrences for each category and the sessions they occurred in.

a. Theme 1: Role of Teacher

The role the teacher played was a major theme that occurred in the participants' diary responses in regards to what they did to check their listening comprehension. This occurred in 20% of responses to this diary probe. According to the participants' responses, the role the teacher played can be seen in a number of ways:

- Teacher as source of feedback & evaluation

Many responses indicated that the participants relied on revising their answers to the listening tasks with the teacher as a way of verifying their listening comprehension. This class of responses is an indication of two elements of deliberate practice: the presence of a tutor and receiving feedback. Examples included:

> *Revise my notes with my teacher*
> *Check them with teacher*
> *By checking my answers with my lecturer*
> *I check my answers with teacher*
> *Check the answers with the teacher after i strive to choose the best and the correct answer*
> *When the teacher correct my outline*
> *My teacher will correct our summaries*

- The teacher as source of guidance

There were instances when participants referred to the teacher as a source of guidance, such as:

I will ask my teacher

I did what my teacher said

- Giving a score: implicit reference to teacher

Sometimes participants referred to giving themselves a score as their way of checking listening comprehension. Since this was done along with the teacher as a group, I considered it as an implicit reference to the role of the teacher. Examples include:

Evaluate the answer out of 10

Just count my marks to see my mark and see if it's good or not after I listen

b. Theme 2: Comprehension Monitoring (Comparing & Connecting)

Compare and connect were also words that have occurred frequently in the diaries. Also, the participants frequently evaluated their responses to the listening tasks and checked whether their answers made sense or not, which was another recurrent theme in the diaries linked to comparing and connecting ideas. This theme occurred in 18% of the responses to diary probe 2. Examples included:

Concentrating very well in the second time and compare the answers to see if they make sense

Read all the answers after choosing an answer to check if I chose the right one

Listen to the lecture again and compare the first notes with second time hearing

Compare the information and think logically

I asked myself questions to logically find connection between the several ideas

Compare the answers to my comprehension

c. Theme 3: Note-taking

The third theme occurring here was the use of notes to verify listening comprehension. This theme emerged from 17% of the students' responses to diary probe 2. The use of notes appeared in a number of ways; one was through re-reading the notes:

I re-read my notes

Going back to my note

Check the outline or the notes

Check my note after second listening

Another instance was revising what they wrote:

By revising all the thing that I wrote

Or writing everything:

Write everything

    d.   Theme 4: Directed Attention (Concentration)

There were many instances in which participants said that they depended on concentrating more to check their comprehension, especially when given a chance to listen again. This appeared in 10% of the responses to diary probe 2. Examples included:

Focusing harder on what the speaker said

By focusing and concentrating more

[التركيز في كل ماهو مهم]Focusing on everything that is important *

Listening carefully to the conversation

I just listen and focus on what I am listening to

Listening carefully is all I can do

    e.   Theme 5: Selective Attention

Deciding to attend to specific parts of the listening input was one of the ways the participants verified their comprehension. This occurred in 10% of the responses to diary probe 2. Examples included:

I focused on the conclusion

Focusing on the questions first

concentrating on the main ideas

focus on introduction and I got the main point from it

f. Theme 6: Background Knowledge

Some students relied on background knowledge to verify their understanding. This accounted for 9% of the responses. Examples included:

> *I used my background information about this field*
>
> *Depending partially on my own* [الاعتماد الجزئي على معلوماتي الخاصة] *information**
>
> *Recalling background information*
>
> *Trying to recall some previous* [محاولة استرجاع بعض المعلومات السابقة] *information**
>
> *If I'm not sure from the answer, I use my own information to answer*
>
> *Remembering some conversation about the same topic*

g. Theme 7: Repetitions

Some other responses entailed that verifying comprehension was done through repetitions facilitated through the teacher when the listening text was played for a second time. This occurred in 8% of the responses. Examples included:

> *Correct my mistakes from listening to the lecture for the second time*
>
> *Go over what I've written in the second time we hear the CD and fill what I've missed*
>
> *Filling the blanks from the second time listening*
>
> *To hear it twice and check my answer*

h. Theme 8: Task

Some participants, 6% of responses, indicated that performing the tasks was their way of checking their understanding:

> *Answering the Q*
>
> *Write the summary by order*
>
> *Read the questions again*

Responses indicating a strategy used before listening had to be disregarded since they do not represent a proper answer to this probe, which aimed at eliciting what

participants had done to check their listening comprehension after engaging in the listening act, for example:

> *I read the questions*
>
> *Read the passage before started*

4.3.3.3 Diary Probe 3: What problems did you have?

By analysing the responses to dairy probe 3, I was able to identify a number of categories mentioned by the participants as sources of problems. These include: vocabulary, lack of concentration, missing information, confusion, misunderstanding, learner problems, task problems, note-taking, difficult text and the need to listen again. The total number of responses to this diary probes across the six DP sessions is 256. Idea units entered for analysis, which included *no problems* as well, made up 98.4 % of the entries, of which 18.6 % were *no problems* responses. Irrelevant responses that had to be excluded from the analysis were only 1.5 % of diary responses to probe 3. The major themes which emerged from data collected in response to this diary probe will be presented here, ordered in terms of frequency of occurrence and supported by extracts from the participants' diaries.

a. Task Problems

I regarded students' responses on task problems as a form of task knowledge, since they relate to comments on the nature and demands of tasks. There were 17% of instances in total relating to task knowledge. I further grouped the responses into the following sub-categories:

- Problems with performing the task

> *How can I divide my outline*
>
> *Not sure what to write and what to leave*
>
> *The last question was kind of tricky the speaker talked about a lot of details and the options were kind of similar and tricky*
>
> *Multiple choices with choose meaning can be tricky*
>
> *It was easy, but the problem come when I understand the question*

> *Multiple choice questions can be tricky and it was this time*

- Problems in covering all points

    > *Not sure if I covered all the main points*

- Problems in linking & arranging information

    > *I can't link the information of the lecture*
    > *Organizing information in a summary*

- Problems in deducing feeling from tone of voice

    > *To know the feeling from the speaker's tone*

- Problems with speech rate

    > *He talk very quickly*
    > *He talk fast(ly) and I cannot write everything he mentioned*
    > *Fast voice can't help to write all steps*

- Not understanding a concept or task

    > *I didn't get what the prof wanted her to do*
    > *Didn't understand the concept*

b. Learner Problems

The participants were able to identify some weaknesses of themselves as learners which caused some problems. There were 15% of instances that I considered as learner problems. However, these learner problems were further classified into the following sub-categories:

- Problems with handwriting

    > *I can't write quickly*
    > *I am slow(ly) in writing, I can't write full information*

- Problems with Spelling

    > *When I wrote quickly I had a lot of mistakes in spelling. And i can't complete with the summary*
    > *My problem is spelling*

- ▪ Problems with certain types of input

    Long lecture make me feel bored and lost on it

- ▪ Lack of background knowledge

    Getting all the examples and the names in it because I am not familiar with such a topic about literature

    I don't know about zoology

- ▪ Not being capable of performing certain types of tasks

    I have a problem with conversation because I can't get all ideas and how they feel just by listening

    I'm not well with expressions

    Listen again to part of the passage, I have a problem in these question

    دايما عندي مشكلة في كتابة [outline] I always have a problem with writing an outline*

- ▪ Rushing to select the answers

    Rushing on choosing the answers

- ▪ Being slow

    Take me time to process the info

    Time! I take a lot of time to write the summary because I want it to be complete

    Summarizing the information took me some time

c. Vocabulary Problems

As mentioned when discussing the challenges I faced in analysing phase one diaries (see Section 4.3.2.1), vocabulary falls under both person and task knowledge according to Goh's scheme. The boundaries are fuzzy when it comes to classifying familiar vocabulary, thus I considered it a separate theme in this phase. New and difficult vocabulary represents a great challenge students had to face when listening in English, according to their responses when asked about listening comprehension problems. There were 13% of instances throughout phase two diaries mentioning vocabulary as a problem:

Hard words make me lost in the lecture

I lost one mark in the first question because I didn't know what the word 'turn in' means

Words that I didn't understand

There were new words I never heard about before

    d.   Lack of Concentration

There were 10% of instances across the sessions that stated lack of focus as a problem:

Don't focus on feeling

I didn't focus on details

I can't focus very well

[وعدم التركيز الكافي] Not concentrating enough*

I didn't focus well because I thought I get the right answer

[تشتت الانتباه بسبب الاختبارات] Not being able to concentrate because of exams*

It's not like you can call it a problem, my mind was elsewhere

    e.   General Comprehension Problems

Some of the problems mentioned by students were general comprehension problems. Sub-categories included the following:

▪   Confusion & misunderstanding

Confusion and misunderstanding was also a recurrent theme, with 10% of responses across the sessions:

Confuse and misunderstand some examples

My problem is confusion between some details

The last part about widgets was confusing and I didn't know which definition to use

It was confusing lecture

I feel confused when the speaker moves from point to another

No problem, just misunderstand the first question

- Missing information

There were also 8% of instances that stated missing some information as a problem participants faced when listening. For example:

> *Missing some words*
>
> *Not catch some ideas very well*
>
> *Miss specific details that the lecturer said*
>
> *Missing part of the lecture which is important for the questions*

- Difficult text

There were 6% of instances that stated difficulty of the listening text as a problem they had:

> *It was so difficult, I didn't understand the lecture*
>
> *It was difficult I can't focus well*
>
> *The lecture was hard*
>
> *It a little bit hard and confused the topic that you cannot get all the information that is required*

Appendix O presents a summary of the themes that emerged from analysing the diary responses to this final probe. The boundaries between these themes were not always clear, and there were many chances of overlap among the themes above.

4.3.4   End of Study Questionnaire

As explained in Section 3.6.1.2, I used an open-ended questionnaire by the end of phase two to evaluate the intervention from the participants' points of view (see Appendix G for a translated version of student responses). In terms of comparing between the two phases of the study, 71% of the respondents favoured the deliberate practice phase. Some of their responses in this respect included:

> *DP as it helps in listening practice*
>
> *DP I realized what I had to do*
>
> *DP because it helps in concentrating and not losing attention*

DP because it includes more training

In terms of the metacognitive instruction phase, 57% of the respondents reported no problems with this phase. However, two participants stated that it took longer than needed. Two others related their experience to exams by explaining that the strategies may not be applicable in exam conditions due to being too anxious or to the absence of a pre-listening phase in an exam setting. Some of the positive responses to phase one included:

> *I learnt to encourage myself before listening*
>
> *Getting to know new ways that help in note-taking & answering Qs*
>
> *Help in pre, while & post-listening*
>
> *I became aware of what I used to do before and after listening*

The students expressed a positive response to the intervention in general. For example, when asked about if they noticed any change in their listening level by the end of the study, they said:

> *Yes, I started to like listening & want to improve it more, before listening classes were boring for me*
>
> *Yes, through practice everything becomes easier*
>
> *Yes, added lots of strategies to me & effective ways plus intensive training*
>
> *Yes, the study has changed my perspective about listening & developed my confidence*
>
> *Yes, I started to like listening, it improved my listening ability*

4.4 Summary

In this chapter, I presented the data analysis procedures used for each dataset gathered from the intervention study. Statistical analysis was used for both the listening test as well as MALQ. Content analysis, on the other hand, was used to analyse the participants' diary responses. The analysis also entailed presenting the results. In the following chapter, however, I attempt to provide answers to the

research questions. As mentioned previously, a mixed-methods study entails analysing the qualitative and quantitative datasets separately, but the two datasets are integrated when answering the research questions.

Chapter 5 Research Findings

5.1 Introduction

The previous chapter presented the analysis of the quantitative and the qualitative data gathered during the course of the study separately. The following chapter, however, brings these two sets of data together and hence answers the research questions through mixing qualitative and quantitative data when appropriate. The results are presented in the light of the four research questions. To recap, the main intent of the study was to explore the impact of both metacognitive instruction and deliberate practice on the participants' EFL listening level and metacognitive knowledge. The study aimed at specifically answering the following research questions:

1. What impact did the metacognitive instruction phase have on the experimental group's level of :

    a. Metacognitive knowledge

    b. EFL listening ability?

2. What impact did the deliberate practice phase have on the experimental group's level of:

    a. Metacognitive knowledge

    b. EFL listening ability?

3. How did the participants in the experimental group develop over the course of the study compared to students in the comparison group in terms of:

    a. Metacognitive knowledge

    b. EFL listening ability?

4. Is there a relationship between the metacognitive knowledge and EFL listening ability of the participants?

5.2   Research Question 1

The first research question attempted to investigate the impact of the first phase of the study, metacognitive instruction, on the experimental group's levels of metacognitive knowledge and EFL listening ability. The results of this phase will be presented below in terms of metacognitive knowledge first and then EFL listening ability.

5.2.1   Metacognitive Instruction & Metacognitive Knowledge

To assess the effect of the metacognitive instruction phase on the participants' level of metacognitive knowledge, a paired-samples t test was conducted. There was a statistically significant difference in the subjects' metacognitive knowledge from Time 1 to Time 2, p −value = .00. This result indicates that formal metacognitive instruction led to an increase in the participants' level of metacognitive knowledge. In terms of the five factors of the MALQ, there was a statistically significant difference in Factor 1, Planning & Evaluation, by the end of the metacognitive instruction phase, p −value = .04*. This result indicates that the instruments used in the metacognitive instruction phase helped improve the participants' planning and evaluation strategies in particular. There was also a slight decrease in the Person Knowledge, Problem-Solving and Mental Translation factors, yet the decrease did not reach statistical significance in any of them.

In regards to the listening diaries collected throughout this phase of the study, Table 5.1 below summarizes the metacognitive knowledge that emerged from the participants' responses to each of the diary probes, ordered in terms of frequency of occurrence.

Diary Probe	Most Frequent Responses	Frequency Across IUs	Category
Diary Probe 2: Why did you find the task easy or difficult?	(un)familiar vocabulary	21 %	Task knowledge
	Types of input	20 %	
	Existing knowledge & experience	19 %	
Diary Probe 3: What has helped you to understand the text you just heard?	Types of input	28 %	Task knowledge
	Background knowledge	12 %	Person knowledge
	Selective attention	10 %	Strategy knowledge
Diary Probe 4: What will you do different next time?	Selective attention	39 %	Strategy knowledge
	Note-taking	24 %	
	Directed attention	15 %	

Table 5.1 Metacognitive Knowledge : Phase 1 Diary Probes

Table 5.1 illustrates that the three types of metacognitive knowledge emerged from the participants' diary responses. However, the most prevalent types in the students' responses during this phase were task and strategy knowledge, as indicated in the table. In the following part, I elaborate more on each of the three types of metacognitive knowledge elicited during this phase, provided with extracts from the participants' actual responses.

5.2.1.1 Phase 1 Task Knowledge

Task knowledge was elicited by diary probes 2 and 3, as shown in Table 5.1 above. All instances of task knowledge mentioned by the participants in this phase of the study fall under the broad category of factors that affect listening comprehension, according to Goh's coding scheme (see Appendix J). The following part sheds light

on and provides quotations for the most frequent responses in the participants'
diaries in relation to task knowledge particularly.

The fact that (21%) of the responses to diary probe 2 were comments on vocabulary
affecting how easy or difficult the participants perceived the text is an indication that
this was a common view among them. Examples from the participants' actual
responses are as such (* indicates the extract was originally in Arabic and has been
translated to English for the purpose of illustration):

> *And there was not any hard words*
> *Without difficult vocabulary*
> *Because the lecturer used easy to understand terms**

Also, comments on types of input as a factor affecting listening comprehension were
a major theme here. In fact, (20%) of the responses to diary probe 2 were comments
on the input itself. Instances included:

> *The lecture was organized*
> *The topic was easy*

Also, comments on types of input occurred as the most salient theme in the
participants' responses to diary probe 3. Some of the students' actual responses
included:

> *The organization of the lecture**
> *The examples that the lecturer give*
> *And the kind of topic*

Another theme related to task knowledge which emerged from the students' diary
responses was the use of existing knowledge and experience. This factor occurred in
(19%) of the participants' responses to diary probe 2. Some of the participants'
responses included:

> *It talks about a common topic**
> *Because sleep issue most (of) people have it*

Hence, the participants showed a considerable amount of task knowledge in response to diary probes 2 and 3 in particular. The major themes mainly related to familiar vocabulary, types of input and existing knowledge and experience.

5.2.1.2 Phase 1 Strategy Knowledge

The sub-category of strategy knowledge most frequently mentioned by participants was selective attention. This appeared as the third most frequent response in the participants' answers to diary probe 3 (10%) as a factor that has facilitated their listening comprehension. The following are extracts from students' responses to diary probe 3 which illustrate the use of this strategy:

> *Focus on what is required from the questions**
>
> *Reading and understanding the questions in the paper first,*
> *so I know the things that I need to concentrate on*
>
> *Focusing on the main ideas or details*

Furthermore, selective attention was the most frequent response occurring in the participants' responses to diary probe 4 (39%), as an aim for next time they undertake a listening task in English. Examples from students' diaries included:

> *Focus on what is required in the question **
>
> *Focusing more on the main ideas and details **
>
> *Focus on the tone of voice*

Another strategy mentioned frequently by participants in response to diary probe 4 was note-taking (24%). Students aimed to better their notes next time they undertook a listening task. Examples from students' actual responses were as such:

> *Use abbreviations to save my time**
>
> *Taking notes, I'll try doing it in a different way **

The third most frequent response occurring in the students' responses to diary probe 4 was directed attention (15%), which is the term used in strategy literature to refer to concentration. Examples included:

I didn't pay attention to some small parts, but next time, I'll be more focused

*I will try to focus more **

Thus, the strategy knowledge reported by participants, either as a way to facilitate their listening or as plans for future listening, related mainly to selective attention, note-taking and directed attention.

5.2.1.3 Phase 1 Person Knowledge

Table 5.1 above indicates that the use of background knowledge was mentioned frequently by participants (12%) when asked about what has helped them to understand the text. Some extracts from the participants' diaries illustrating this major theme include:

*The information I have from before **

*I have some previous information **

*Previous readings on the subject **

Some of the words and information that I know

While there is definitely a degree of overlap among the types of knowledge reflected in the quotations given above, taken together these qualitative data reflect a level of metacognitive knowledge among participants. During phase one of the study, the participants showed a higher degree of both task and strategy knowledge, and some degree of person knowledge.

5.2.2   Metacognitive Instruction & EFL listening ability

To measure the impact of the metacognitive instruction phase of the study on the experimental group's listening ability level, a paired-samples *t* test was conducted. There was a statistically significant difference in the subjects' listening test scores from Time 1 to Time 2, *p* –value = .02. This shows that the EFL listening ability of the participants in the experimental group had developed by the end of metacognitive instruction.

In a nutshell, the results presented above suggest that the three-session metacognitive instruction phase led to an increase in the participants' metacognitive knowledge as well as EFL listening ability.

5.3 Research Question 2

The second research question attempted to investigate the effect of phase two of the study, the deliberate practice phase, on the experimental group's levels of metacognitive knowledge and EFL listening ability. The outcomes of phase two will be presented below in terms of metacognitive knowledge first and then EFL listening ability

5.3.1 Deliberate Practice & Metacognitive Knowledge

A paired-samples *t* test was carried out to measure the impact of the second phase of the study on the participants' level of metacognitive knowledge. Although there was a slight increase in the mean scores of the students' metacognitive knowledge by the end of this phase, the difference was not statistically significant, *p* −value = .17. As for the five factors of the MALQ, there was no significant difference in any of the factors from Time 2 to Time 3. Although the means of factors 2, 3, and 4 have increased, yet the difference was not statistically significant in any of them. Comparing these results with the results of phase one in terms of the participants' metacognitive knowledge indicates that phase one had a larger impact on the students' level of metacognitive knowledge.

An analysis of the participants' phase two diaries revealed ample evidence of their metacognitive knowledge, particularly the behaviours underlying the metacognitive strategies of planning, monitoring and evaluation. The responses also revealed elements relevant to DP, as the analysis indicated. Table 5.2 below summarizes the major findings that emerged from an analysis of phase 2 diaries. The summary indicates that strategic knowledge was elicited by both diary probes 1 and 2. In response to diary probe 1, the most frequent replies were instances of planning strategies, including selective attention, directed attention and advance organization.

These responses relate to two DP elements, which are concentration and motivation. As for diary probe 2, the most frequent responses were of monitoring and evaluation strategies. Note-taking was also mentioned as the third most frequent response to diary probe 2. The role of the teacher in providing feedback also relates to DP elements. Finally, diary probe 3 brought about instances of both task and person knowledge.

Diary Probe	Most Frequent Responses	Frequency Across IUs	Category	Sub-category
Diary Probe 1: What are the important things you did to understand the text you just heard?	Selective attention	34 %	Strategic knowledge	Planning strategies
	Directed Attention	16 %		
	Advance organization	16 %		
Diary Probe 2: What did you do to check your listening comprehension?	Teacher/ feedback	20 %	Strategic knowledge	Monitoring & evaluation strategies
	Comprehension monitoring	18 %		
	Note-taking	17 %		
Diary Probe 3: What problems did you have?	Task problems	17 %	Task & person knowledge	
	Learner problems	15 %		
	Vocabulary	13 %		

Table 5.2 Metacognitive Knowledge : Phase 2 Diary Probes

Table 5.2 above demonstrates that the diary probes in phase two of the study elicited more strategic knowledge than any of the other two types of metacognitive knowledge: task and person knowledge. This could be an impact of the deliberate practice on participants. When investigating the relationship between the two

concepts of metacognitive knowledge and deliberate practice, I noticed that the elements of deliberate practice reside mainly under strategic knowledge (see Section 6.3). The following part, however, will shed more light on the results in Table 5.2. I will start with strategy knowledge since it was the most prevalent in the participants' diary responses throughout the deliberate practice phase of the study.

5.3.1.1 Phase 2 Strategy Knowledge

In response to diary probe 1, the participants mainly referred to selective attention as one of the major things they did to comprehend the listening text. This theme was the most recurring in the participants' responses, with (34%) of the total responses to diary probe 1 falling under this category. Examples from students' responses included:

> *focusing on the main ideas and examples*
> *concentrate on the main point*
> *concentrate on the key words of the lecture*
> *focus on the introduction and conclusion*
> *focus on the questions*

The next theme in order of frequency was directed attention, or concentration in DP terms, with (16%) of responses to diary probe 1 falling under this category. Some examples from the students' responses included:

> *focusing on their conversation*
> *I concentrated as much as I can*
> *listen carefully, I didn't think about anything else*
> *concentrated very well*
> *I only concentrated on the conversation between the student and tutor**
> *I tried to direct all my attention to the lecture**

The third theme that emerged from students' responses to diary probe 1 was advance organization: setting objectives for the task in hand and thinking of ways to handle it. Of the total responses throughout the sessions, (16%) of responses to probe 1

were instances of advance organization. Examples from the participants' diaries included:

> *prepare the main ideas of the text before I read*
>
> *try to answer the questions before I listen and think about what I will listen to*
>
> *read the question before listening so that I can get some ideas about the information that I will hear*

As the previous extracts illustrate, most instances of advance organization relied on reading comprehension questions before attending to the listening text. Selective attention, directed attention and advance organization are all classified as planning strategies. Hence, the extracts above indicate that the participants used planning strategies quite frequently in order to understand the listening texts.

Strategic knowledge was also elicited by diary probe 2 as indicated in Table 5.2 above. This time it was mainly monitoring and evaluation strategies that emerged from the participants' responses. The role the teacher played was a major theme (20%) that occurred in the participants' diary responses in regards to what they did to check their listening comprehension. Many responses indicated that the participants relied on revising their answers to the listening tasks with their teacher as a way of verifying their listening comprehension. This set of responses is an indication of two elements of deliberate practice: the presence of a tutor and receiving feedback. Examples from students' responses included:

> *Revise my notes with my teacher*
>
> *Check the answers with the teacher after I strive to choose the best and the correct answer*
>
> *When the teacher correct my outline*
>
> *My teacher will correct our summaries*
>
> *Just count my marks to see my mark and see if it's good or not after I listen*
>
> *I will ask my teacher*

The second most frequent theme that emerged from responses to diary probe 2 embodied instances of comprehension monitoring (18%). Compare and connect

were words that occurred frequently in the diaries. Also, the participants frequently monitored their responses to the listening tasks and checked whether their answers made sense or not, which was another recurrent theme in the diaries linked to comparing and connecting ideas. Examples from students' responses included:

> *Concentrating very well in the second time and compare the answers to see if they make sense*
>
> *Compare the answers to my comprehension*
>
> *Compare the information and think logically*
>
> *I asked myself questions to logically find connection between the several ideas*
>
> *Listen to the lecture again and compare the first notes with second time hearing*

The third theme that occurred in response to diary probe 2 was the participants' use of notes to verify their listening comprehension (17%). The use of notes appeared in a number of ways; one was through re-reading the notes:

> *I re-read my notes*
>
> *Check my note after second listening*
>
> *By revising all the thing that I wrote*

The use of notes can be seen as a monitoring as well as an evaluation strategy, depending on whether the notes were consulted while listening or when the listening was completed. Hence, the quotations above indicate that the participants showed a good deal of strategy knowledge throughout phase two of the study in response to the first two diary probes.

5.3.1.2 Phase 2 Task Knowledge

There were (17%) of instances in total responses to diary probe 3 relating to task knowledge. I have grouped them into the following sub-categories, based on the definition of task knowledge:

- **Nature of the listening task**

> *To know the feeling from the speaker's tone*
>
> *He talk very quickly*

He talk fast(ly) and I cannot write everything he mentioned

Fast voice can't help to write all steps

- **Demands of the listening task**

    How can I divide my outline

    The last question was kind of tricky the speaker talked about a lot of details and the options were kind of similar and tricky

    Multiple choices with choose meaning can be tricky

    Not sure if I covered all the main points

    Organizing information in a summary

- **Purpose of the listening task**

    I didn't get what the prof wanted her to do [in the conversation]

    Didn't understand the concept

5.3.1.3 Phase 2 Person Knowledge

The participants were able to identify a number of weaknesses of themselves as learners which caused them some problems. Among the students' replies to diary probe 3, (15%) were instances I considered as learner problems, and hence reflect person knowledge. Examples from students' responses included:

I can't write quickly

My problem is spelling

Long lecture make me feel bored and lost on it

Getting all the examples and the names in it because I am not familiar with such a topic about literature

I don't know about zoology

I have a problem with conversation because I can't get all ideas and how they feel just by listening

I'm not well with expressions

Listen again to part of the passage, I have a problem in these question

Rushing on choosing the answers

Time! I take a lot of time to write the summary because I want it to be complete

Summarizing the information took me some time

5.3.1.4 Vocabulary

Vocabulary was another major theme emerging from the participants' responses to diary probe 3. This theme can be classified under either person or task knowledge, as the boundaries between the two are not always clear-cut (see Section 4.3.2.1). Across phase two diaries, 13% of the responses to diary probe 3 were instances mentioning vocabulary as a problem the students faced when listening. Examples from the students' responses included:

Hard words make me lost in the lecture

Words that I didn't understand

There were new words I never heard about before

5.3.2   Deliberate Practice & EFL listening ability

To evaluate the impact of the second phase of the study on the experimental group's listening ability level, a paired-samples t test was conducted. There was a statistically significant difference in the participants' listening test scores from Time 2 to Time 3, p -value= .01. This signifies that the participants' listening ability has developed by the end of the deliberate practice phase.

From the findings presented above, I conclude that the deliberate practice phase of the study had a more positive impact on the participants' EFL listening ability than on their metacognitive knowledge level. However, both phases of the study had a positive effect on increasing the participants' level of listening ability.

5.4   Research Question 3

The third research question aimed at evaluating the intervention in general by comparing the results of the experimental group against those of the comparison group. This research question specifically looked into the development of

metacognitive knowledge and EFL listening ability of the two groups over the course of the study.

5.4.1 Impact of Intervention on Metacognitive knowledge

When the pre-questionnaire scores for both groups were compared in an independent-samples t test, results indicated that there was no statistically significant difference in metacognitive knowledge between the two groups, p −value = .12. This indicated that students in both groups were at similar metacognitive knowledge levels prior to the intervention. However, to measure any changes in metacognitive knowledge by the end of the study, an independent-samples t test was also conducted. There was a statistically significant difference in metacognitive knowledge, as reflected in the post-MALQ scores, between the two groups, p −value = .02. This result confirms that the experimental group outperformed the comparison group on the final MALQ.

Having controlled for pre-questionnaire scores for the two groups, there was a statistically significant difference in metacognitive knowledge between the two groups on the final MALQ results, F = 10.96, p −value = .00, adjusted R squared = .38. This indicates that (38%) of the variance in the post-questionnaire results was explained by group. Results also signalled that by controlling for baseline MALQ results, the post-questionnaire results for the experimental group were higher.

5.4.2 Impact of Intervention on EFL listening ability

When the pre-test scores for both groups were compared in an independent-samples t test, results indicated that there was no statistically significant difference in listening ability between the two groups, p −value= .09 prior to the study. This result means that the two groups were at similar levels in terms of EFL listening ability before the study took place.

To trace any changes in EFL listening ability level between the two groups by the end of the study, an independent-samples t test was also conducted. There was no

statistically significant difference in listening test scores for the two groups, p -value= .74. However, by controlling for the pre-test scores, there was a significant difference in the listening test results between the two groups, p -value= .05, adjusted R squared = .41. This entails that (41%) of variance in the post-test was explained by group. The implication of this is that if I control for baseline scores, the post-test scores were higher for the experimental group by three marks, as shown by the means.

Based on the results presented above, I conclude that this two-phase intervention had a positive impact on the participants' metacognitive knowledge and EFL listening ability.

5.5   Research Question 4

The final research question attempted to investigate the relationship between the metacognitive knowledge and EFL listening ability of the participants. I attempted to answer this question in two ways: one by statistical measures, via correlation. The other method was by comparing the data of two high ability participants with those of two low ability ones from the experimental group. The aim was to reveal any differences in metacognitive knowledge between these two ability groups.

In order to look into the relationship between listening ability and metacognitive knowledge, first results from the MALQ were correlated with corresponding listening test scores at the three different points of the study. Table 5.3 below indicates that there was a significant, large positive correlation between the experimental group's results on the end of the first phase listening test and their MALQ results for the same point. The results relate only to the experimental group and the number of participants showing decreased due to missing data. A Pearson correlation coefficient of $r = .66$, $p = .01$ ($n = 16$) was found between scores on the listening test and MALQ for the experimental group participants by the end of phase one. This means that (43%) of variance is held in common between the two variables, which is a very large effect size. There was also a medium positive

correlation between the two groups post-test listening scores and post MALQ results. However, this was lower than the previous result because it includes the scores for both groups of the study.

Variable 1	Variable 2	r	p-value	Coefficient of Variance	N
Pre-test	Pre- MALQ	.25	.15	6%	36
End of 1st Phase test	End of 1st Phase MALQ	.66	.01	43%	16
Post -test	Post-MALQ	.45	.01	20%	36

Table 5.3 Correlation Results

To further investigate the relationship between listening ability and metacognitive knowledge, I drew a comparison between two different ability pairs. I chose two participants who achieved among the highest scores on the listening test to represent the successful participants. The less-successful ones, on the other hand, were the two participants who got the lowest scores on the pre-test. These four participants were present in all sessions throughout the study and completed the three listening tests and MALQs. One of the successful participants achieved the highest marks in the three listening tests: the pre, end of first phase and the post tests. The less successful ones had the lowest scores in the first two tests, but not on the final test. Table 5.4 below presents a summary of the listening test scores for these four participants (all names given here are pseudonyms).

Participant	Pre-test	End of 1st phase	Post-test
Eman	35.5	38	39.5
Lulu	27	34	36.5
Badriyah	12	10.5	20
Adeem	12	12	19

Table 5.4 TOEFL Test Scores

*TOEFL test out of 40

Table 5.4 above indicates that the participants' listening ability improved for all four of them by the end of the study. However, by the end of phase one, the listening test scores for the less-successful participants witnessed either a decrease, as in Badriyah's case, or remained the same, as in Adeem's case. The successful participants, on the contrary, continued to achieve higher marks each time they did the listening test. This suggests that the metacognitive instruction phase did not have a positive effect on the less-successful participants' listening ability level, whereas the deliberate practice phase did in fact help improve their listening level. This result may be an indication that the short span of the first phase was not sufficient for the less-successful group and hence did not lead to any improvements in their listening ability.

In regards to differences in metacognitive knowledge, Table 5.5 below presents the MALQ scores for these four participants. The scores indicate that the successful participants had higher scores in regards to metacognitive knowledge prior to the intervention. Both ability groups scored higher on the MALQ by the end of the study.

Participant	Pre Questionnaire	In Questionnaire	Post Questionnaire
Eman	15	15.5	16.7
Lulu	13.6	14.5	16.5
Badriyah	12.4	12.5	12.7
Adeem	13.2	13.4	15.1

Table 5.5 MALQ Scores

In the end of phase one survey, I found that the less-successful participants, Badriyah and Adeem, both stated that they do not set a definite time to deliberately practise listening to English; instead, practice is done according to their free times. On the other hand, the most successful participant, Eman, had another response to this query. She said she sits to practise three times a week. The other successful participant, Lulu, said she does not deliberately practice listening.

On the final open-ended questionnaire, the participants were asked about the positive and negative sides of each of the two phases of the study. Unsurprisingly, the most successful participant, Eman, stated that the metacognitive instruction phase lasted longer than needed, even though in truth this phase was much shorter than the deliberate practice one. This entails that successful participants already possess a wide repertoire of metacognitive knowledge, as their scores on the pre-MALQ above show. She further stated in her responses to the final questionnaire that the metacognitive instruction phase was helpful to her in terms of bringing to consciousness the strategies she already uses:

> *I became aware of what I do before and after listening**
> *(Eman)*

By contrast, one of the less successful participants, Badriyah, stated that she *started* applying some of the strategies as a result of taking part in the first phase of the study. However, both groups found the deliberate practice phase more useful to them. Eman stated that she benefitted more from the second phase, as she said:

Practice makes perfect

Lulu also shared a similar point of view:

> *The deliberate practice phase as it helps in concentrating and not losing attention*

In terms of phase one diary responses, Table 5.6 below presents a summary of the categories that emerged from their responses to diary probes 2 and 3 throughout phase one.

Category	Eman	Lulu	Badriyah	Adeem
1. Familiar topic	✓	--	✓	✓
2. Types of input	✓	✓	✓	✓
3. (un)familiar vocabulary	✓	✓	✓	✓
4. Speech rate	✓	✓	--	--
5. Different varieties & local accents	--	✓	✓	✓
6. Background knowledge	--	--	✓	✓
7. Physical factors	--	--	--	--
8. Reading Qs (advance organization)	✓	--	--	--
9. Self-management	--	--	✓	--
10. concentration	--	--	✓	✓
11. note-taking	--	--	--	✓

Table 5.6 Participants' Responses to Phase 1/ Probes 2 & 3

Table 5.6 above indicates the similarities and differences between the two groups of students. Both ability pairs conveyed that familiarity of the topic, the type of input, accents and vocabulary were factors that helped them understand the listening text.

However, the less-successful pair appeared to be more dependent on background knowledge to comprehend the text. Speech rate as a source of simplicity or difficulty of the text was mentioned by the successful participants but not by the less-successful ones.

In regards to what they will do different next time, the successful participants sometimes answered with *Nothing*, or left the space blank. One of the successful participants said that she intends to guess the answers to the questions before listening, as well as focusing more on what is stated in the questions. Both groups reported selective attention and note-taking among their strategies to be used in future listening tasks. The less-successful participants stated that they will improve their listening, which was not mentioned by their successful peers. At times, the responses of the less successful group were too general, for example:

> *I will do my best, improve my listening skill more.*

In terms of phase two diary responses, Table 5.7 below gives a summary of the strategies that emerged from the participants' responses to diary probe 1.

Category	Eman	Lulu	Badriyah	Adeem
1. note-taking	✓	✓	✓	✓
2. selective attention	✓	✓	✓	✓
3. directed attention	✓	✓	✓	--
4. comprehension monitoring (paying attention to repetitions)	✓	✓	--	--
5. advance organization	✓	✓	✓	--
6. background knowledge	✓	✓	--	--
7. visualization	✓	--	--	--
8. self-management	--	--	✓	--

Table 5.7 Strategies elicited by Probe 1

Table 5.7 indicates that the two ability groups agreed on the importance of note-taking as well as selective attention in facilitating listening. Directed attention was also used by most of them. When asked about the important things they did to understand the text, participants in the successful group showed an ability to plan ahead. Eman stated that:

> for the 1st time, I listen to get an overall info, while taking notes, 2nd time I focused on what I missed

Eman also said in another response:

> analyze the Qs and their possible meaning to determine where should my focus be

She further said:

> I read the Qs thoroughly and underline the important words .. to recall background knowledge. During listening I focused on key words to grab the answers

Lulu also said:

> Read the questions before listening then underlining the key words

Both successful participants also showed an ability to monitor their comprehension. For instance, Lulu said:

> I made a connection between what I heard and the background information that I have

On the other hand, Adeem did not show much use of strategies. The strategies she used in helping her to understand the text were mainly two: note-taking and selective attention, particularly focusing on main ideas.

As for diary probe 2, Lulu depended mainly on note-taking, and directed attention to verify her comprehension. Some of her responses included:

Tried to concentrate more

*Read all the answers after choosing an answer to check if I
chose the right one*

Eman, on the other hand, depended mainly on recall and logic to verify comprehension. She also made use of background knowledge, visualization and notes to verify her comprehension, for example:

*I asked myself Qs to logically find connection between the
several ideas*

Badriyah seemed to view carrying out the required task as her single means for verifying comprehension (first 3 sessions). She was undoubtedly lacking in monitoring strategies. At times she answered:

I didn't do anything (3 times)

At other times, she simply decided not to answer this diary probe (2 times). And when she did, she provided an answer that was completely irrelevant, for instance:

*I understand the type of characters in the lecture and I try to
understand some words*

Adeem, on the other hand, clearly relied on repetition as well as notes that she had taken while listening to verify her comprehension. She also mentioned focus as a way of monitoring her comprehension. At times her answer to this response was entirely irrelevant, like:

read the passage before we start.
And I put line under the key word

This evidently shows that participants in the less-successful group were lacking in monitoring strategies.

As for diary probe 3 'what problems did you have', Lulu mentioned vocabulary, handwriting and task having tricky choices as some of her problems. Sometimes she

answered with *None*, indicating no difficulties in her listening. She also mentioned lack of focus as a problem for her at some times, for instance:

> *The options of these questions was confusing, they were quite similar and I didn't focus well because I thought I got the right answer*

Eman, who was the other successful participant, also mentioned in some of the sessions that she faced *no problems* and at other times she chose not to respond to this probe. However, similar to Lulu, one of the problems she stated related to the task, particularly multiple choice questions:

> *multiple choices Qs can be tricky and it was this time*

Other problems she stated included the following:

> *organizing information in a summary*
>
> *names are a problem for me*
>
> *takes me time to process the information*
>
> *rushing on choosing the answers*
>
> *I didn't focus enough since questions required me to infer the answers*

Evidently, the problems she mentioned related mainly to task and person knowledge; only the last response was relevant to strategy knowledge. This indicates that she is capable of identifying her weaknesses as a learner and the types of tasks she may face a problem with.

The less-successful participants, on the contrary, gave many points regarding the problems they had when listening. Some of the problems Badriyah mentioned included:

> *I can't link the information of the lecture*
>
> *Hard vocabulary, I don't have any background about the topic*
>
> *Lecture confused a little bit*
>
> *I have to listen once again to organize my information*

> *It was confusing lecture*
>
> *It was easy, but the problem come when I understand the Q*
>
> *I didn't understand some of the terms, and the lecture was a bit difficult**
>
> *Maybe if I listened to it a third time I would have been able to fill in missing information**
>
> *It was easy, some question confused a little bit*

Adeem also reported a variety of problems she faced:

> *When I wrote quickly, I had a lot of mistakes in spelling and I can't complete with the summary*
>
> *It was so difficult. I didn't understand the lecture. Also, it had many words I didn't know it. So I couldn't write a summary*
>
> *I don't know some of these vocabulary*
>
> *I think I wrote supporting details with main ideas. Also, the text isn't in order*
>
> *The specific details was not clear*
>
> *Listen again to part of the passage, I have a problem in these question*
>
> *I think the lecture was very difficult, maybe because you selected the answer*
>
> *I can't only focus on the main ideas instead I write the other details and this makes me feel this will make me err**
>
> *I heard to new words. And I don't know about (zoology)*
>
> *What does the .. say? These questions make me mistake a lot of time*
>
> *I made a mistake on the main idea of all the passage*

It was only in the final session that this participant started to feel more comfortable with listening and stated that she faced no problems:

> *Today I'm so happy I did well I didn't have problems*
>
> *I thank God today there is no problem*

The examples given above from the diaries of the less-successful participants suggest their low-efficacy, as they tended to attribute the problems to themselves as listeners rather than to the task or the use of strategies.

The findings presented above brought about some interesting differences between successful and less-successful participants. However, one striking finding was the low volume of metacognitive knowledge reported by Ameerah, who was one successful participant who chose to take part in the intervention. Ameerah always answered with 'nothing' when asked about things done to verify listening comprehension. It was only once that she explained by saying:

> *I don't do nothing. I just listen and focus on what I am*
> *listening to*

Ameerah apparently did not face many problems while listening and answered with *Nothing* most of the times when asked to report on her problems. This particular response may be an indication that the texts were not challenging enough for her, given that (50%) of her answers were *No problems*. However, one of the very few problems she stated was missing information:

> *Missed some points in the first time listening and had to fill it*
> *in when hearing for the second time*

Another problem for her was time:

> *Time! I take a lot of time to write the summary because I*
> *want it to be complete*

Confusion was also mentioned by her:

> *The last part about widgets was confusing and I didn't know*
> *which definition to use*

> *Knowing how was it organized, it wasn't an easy one and yet*
> *not hard. It was a little bit fast for me*

Towards the end of the study, I learnt from Ameerah herself that her mother was a native speaker of English. Hence, English was more or less a mother tongue for her. It was interesting that she volunteered to take part in this study in the first place. This may be an explanation why her diary responses did not reflect much metacognitive knowledge, even though she was a high ability participant and faced no problems with listening as a skill. The listening texts were not challenging

enough for her, as she stated in one of the questionnaire. Ameerah's case will be discussed as an example of automaticity in the following chapter.

5.6   Summary

The present chapter provided answers to the four research questions of the study. The findings from both QUAL and QUAN datasets were integrated in this chapter. The findings indicate the positive effect of the intervention on the listening ability and metacognitive knowledge of the experimental group. Further, findings indicated that metacognitive knowledge developed most for the experimental group by the end of formal metacognitive instruction. Both phases of the study had a positive impact on the participants' listening ability level. The findings also revealed differences in terms of metacognitive knowledge between successful and less-successful listeners. The findings of my study will be discussed and related to results of other studies in the field of L2 listening instruction in the following chapter.

Chapter 6 Discussion & Conclusion

6.1 Introduction

The previous chapter attempted to provide answers to the research questions of this study. In the present chapter, however, I discuss the results of my research and relate them to findings of other studies in the field. To reiterate, the present two-phase intervention study attempted to integrate the concepts of metacognitive instruction and deliberate practice into the L2 listening training sessions of tertiary level Saudi, female participants. This study is unique in combining the two notions of metacognitive instruction and deliberate practice into one study. It was these two concepts that informed the study, and hence discussion of the results will revolve around them. The focus will be more on the results of the participants in the experimental group, as they were the ones who took part in the intervention, and three of the research questions relate to their results. The results of the comparison group, on the other hand, will be used for comparison purposes to reveal the impact of the intervention as a whole. As far as I am aware, applying the concept of deliberate practice to L2 listening training sessions is quite novel. Hence, the results of using deliberate practice in the L2 listening classroom cannot be compared against any other study in the field of language learning, as there is none to the best of my knowledge. However, by discussing the results of this study, I attempt to demonstrate that deliberate practice has a place in the language classroom.

Discussion of the results will be based on the research questions. Hence, the first part of the discussion will be about the impact of metacognitive instruction on the participants' levels of metacognitive knowledge and EFL listening ability. Then I will discuss results related to comparing successful with less-successful participants in the experimental group. The following part will be on the effect of deliberate practice, in particular, on the experimental group's levels of metacognitive knowledge and EFL listening ability. Finally, I will discuss the results that relate to evaluating the intervention in general. After discussing the major findings of the study, I present theoretical and pedagogical implications based on my research.

After that, I state the main contributions of the study. Next, I acknowledge the limitations of the study, and then put forward some suggestions for future research in the field of L2 listening instruction. I conclude this chapter with a personal reflection on my PhD journey.

6.2   L2 Listening Expertise: Discussion of Results

The results presented in the previous chapter indicate that there was an increase in the participants' metacognitive knowledge, as measured through the MALQ, as well as their EFL listening ability by the end of the three metacognitive instruction sessions. The results also showed a slight, non-significant increase in the experimental group's metacognitive knowledge by the end of the deliberate practice phase. The EFL listening ability of this group, however, significantly improved by the end of this phase of the intervention. The experimental group also outperformed their counterparts in the comparison group on the final MALQ as well as TOEFL listening test, indicating a positive impact of the study as a whole on their levels of metacognitive knowledge and listening ability. Thus, I argue that L2 listening expertise is achieved through deliberate practice, besides the development of linguistic knowledge, metacognitive knowledge, and strategies as identified by Goh (2005) (see Section 2.5.). In line with studies on expertise in other fields, deliberate practice is an essential element on the path to excellence in L2 listening as well. I discuss below the results of integrating this concept with metacognitive instruction into L2 listening sessions.

6.2.1   Impact of Metacognitive Instruction

In terms of metacognitive instruction, specifically, the results demonstrated that the form of metacognitive instruction held in phase one of the study led to an increase in the experimental group's level of metacognitive knowledge, as measured by the MALQ. This indicates that the instruments used to heighten the participants' metacognitive awareness had a positive effect on their metacognitive knowledge. The study in hand produced results that corroborate the findings of a great deal of previous work in the area of metacognitive instruction in L2 listening. The positive

impact of various forms of metacognitive instruction on students' levels of metacognitive knowledge as well as L2 listening ability has been reported in the literature, e.g. (Goh and Taib, 2006, Vandergrift, 2002, Vandergrift, 2003a, Vandergrift and Tafaghoddtari, 2010). This finding confirms that formal metacognitive instruction in L2 listening sessions does in fact lead to an increase in metacognitive knowledge, according to MALQ results. Furthermore, the qualitative and quantitative data results reflect the level of metacognitive knowledge among the participants in the experimental group. The metacognitive knowledge reported by these Saudi female, tertiary level students is similar to that reported by learners of different ages, language backgrounds and levels of language proficiency, as demonstrated below.

Metacognitive instruction, as mentioned previously, aims at increasing the learners' awareness of the listening process through developing person, task and strategy knowledge (Vandergrift and Goh, 2012). Similar to other studies in the field, this research attempted to raise the participants' metacognitive awareness through the use of checklists, guided listening diaries, group discussions, as well as the MALQ. Goh (2008) explains that metacognitive instruction influences students' listening performance by altering "the manner in which the learners approach the task of listening and learning to listen" (p. 196). Given that listening is a hidden process that takes place in the listeners' heads, metacognitive activities allow learners to uncover these processes (ibid). The positive influence of the instruments used in phase one is manifested in allowing the learners to take a step back from real-life listening, reflect on their listening processes and figure out for themselves how to be more effective listeners (Vandergrift and Goh, 2009). By allowing the learners to uncover the hidden listening processes, the metacognitive approach challenges the current comprehension approach to L2 listening instruction with its mere focus on the listening product: the right answer. Hence, improvement in the participants' listening performance by the end of phase one may be an indication that the way the participants approached the listening texts has undergone some changes.

Regarding the five factors represented in the MALQ, it was the factor of planning and evaluation which witnessed the most significant increase by the end of

metacognitive instruction. This finding indicates that the instruments used in phase one, the checklist, guided listening diaries and group discussions, facilitated the development of planning and evaluation strategies. This is also partially supported by phase one diary responses which indicated the prevalence of planning strategies in the students' listening diaries. This finding is similar to Vandergrift and Tafaghoddtari (2010) who found in the participants' stimulated-recall reports an increase in their awareness of planning and evaluation strategies following an approach that aimed at sensitizing the students to processes underlying listening. Vandergrift (2002) also found that the majority of his participants' responses were on planning strategies. Planning strategies were also among the most frequent strategies reported by participants in the study by Goh and Taib (2006). The planning and evaluation factor, in particular, "represents the strategies listeners use to prepare themselves for listening, and to evaluate the results of their listening efforts" (Vandergrift et al., 2006, p. 450). The items this factor represents include strategies that relate to setting a plan before listening, recalling texts similar to the one in hand, keeping a goal in mind during listening, periodically questioning one's amount of satisfaction with level of understanding while listening, and finally after listening, reflecting on one's listening efforts and thinking of ways to make listening better next time (ibid).

The factors of person knowledge, and directed attention also increased by the end of phase one, although the increase did not reach statistical significance. Person knowledge represents listeners' perceptions regarding the difficulty they have in L2 listening as well as their self-efficacy in terms of L2 listening. In fact, person knowledge emerged as the least frequently mentioned type of metacognitive knowledge in the students' diary responses during phase one. This result, in particular, has also been reported by Vandergrift (2002) who found that person knowledge was not as evident as the two other types of metacognitive knowledge in his students' responses. Person knowledge reported by participants in my study, however, related mainly to the use of background knowledge in response to what facilitated their listening comprehension. Having emerged as a major theme from a mixed-ability group supports the finding in the literature that "language learners, regardless of their level of listening competence regularly draw on background knowledge to fill in gaps in their understanding" (Goh, 2005, p. 73). Yet, the

dividing factor seems to be the effective use of this background knowledge, which relates to comprehension monitoring, as mentioned later in this section.

Directed attention, on the other hand, includes four strategies which represent actions undertaken by listeners to concentrate and stay on task. In terms of diary responses, strategy knowledge, in general, occurred frequently in response to future listening plans. Specifically, the three most commonly reported strategies in this regard were selective attention, note-taking and directed attention. This indicates that the participants are aware of the significance of these strategies and the role they play in effective listening, hence they intend to apply them in future listening. The emergence of selective attention and directed attention corroborates findings from MALQ regarding the planning and evaluation factor, as selective attention and directed attention both relate to planning strategies. These two strategies are collectively referred to by Graham (1997) as attentional strategies. Although they are applied prior to listening, they are "held to be particularly important as support strategies for monitoring" (ibid: 50).

Directed attention emerged from the listening diaries in response to future plans, which distinguishes it from the way Vandergrift et al. (2006) use the term directed attention. According to the MALQ, directed attention refers to strategies which represent "the important role played by attention and concentration *in the process of listening comprehension*" (p. 45, my emphasis). On the other hand, directed attention which emerged from diary responses corresponds to the way Graham (1997) defines it: deciding to concentrate on a task to the maximum before tackling it, and is considered a planning strategy. A possible explanation for this finding would be the design of the tasks used in this phase which emphasised focusing on main ideas of the text in the first listening and on specific details during the second time, which helped participants to direct their attention before each listen. Also, the use of the checklist encouraged the use of planning strategies, by giving students a number of before-you-listen strategies in preparation for listening. Note-taking, which is a cognitive strategy, appeared frequently in the students' diary responses as one type of strategy knowledge. This is not a surprising result for me since the course book used in the Listening 4 course focuses on note-taking skills, and as a

consequence, students are always encouraged to take notes and make use of them when fulfilling tasks.

However, the factor of mental translation in the MALQ witnessed a decrease by the end of the metacognitive instruction phase, which is a good sign. This factor includes strategies that must be avoided by learners in order to become skilled listeners, thus, a lower mean score is desirable. The three items this factor represents "all tap the online mental translation strategy," which is "an inefficient approach to listening comprehension" (Vandergrift et al., 2006, p. 450). The use of online mental translation did not emerge as a theme from the students' diary responses. This indicates that the students do not use this strategy to facilitate their listening, which provides further support to the result of mental translation factor according to MALQ. The participants' general level of proficiency, as well as being English major students, may be an explanation why online translation did not occur as a common strategy for them.

The factor of problem-solving has also undergone a slight decrease by the end of the metacognitive instruction phase, according to MALQ results. This factor includes strategies listeners use to make inferences when listening and to monitor their inferences (Vandergrift et al., 2006). The results reached by analysing phase one listening diaries partially support this finding since monitoring did not emerge as a major theme in the students' diary responses, although there were some instances of making inferences. Monitoring strategies are desirable for effective L2 listening, yet it is planning and evaluation strategies, Goh (2005) says, which are particularly useful to L2 listeners because they are applied outside of real-time listening. Unlike monitoring strategies, planning and evaluation do not hamper listening and they consequently have a significant impact on overall listening (ibid). Further, the presence of planning and evaluation strategies is an indication that "responsibility for learning shifts from the teacher to the student" (Vandergrift, 2002, p. 571). Stepping back from real-time listening to reflect on the listening process helps learners "understand and change learning behaviours" (ibid). As Anderson (2008) explains "metacognition results in critical but healthy reflection and evaluation of thinking that may result in making specific changes in how learning is managed, and

in the strategies chosen for this purpose" (p.99). He further comments on planning strategies by saying that "taking time to prepare for learning and plan what needs to be accomplished makes a major difference in learning" (p. 100). Therefore, the slight decrease in problem solving strategies, as mentioned above, is not worrying since it is the planning and evaluation strategies which have an ultimate effect on overall listening performance, according to Goh (2005). Problem-solving strategies, on the contrary, may hamper listening due to them being applied while listening and consequently cause some interference with real-time listening.

One way of planning for effective learning, Anderson (2008) points out, is the activation of prior knowledge. This is also reflected in one of the items under the planning and evaluation factor in the MALQ: recalling similar texts. The participants' prior knowledge was activated during phase one in this study through the use of a before-you-listen question that is relevant to the topic. The checklist also included one specific item on activating prior knowledge: 'I have attempted to recall all that I know about the topic'. The significance of prior knowledge also emerged as a factor in the participants' responses to two diary probes; 'why did you find the task easy or difficult?' and 'what has helped you to understand the text?'. The role prior knowledge plays in listening comprehension is well-established in the literature (Buck, 2001, Macaro et al., 2007, Vandergrift and Goh, 2012, Vandergrift, 2011). Activating prior knowledge is particularly essential when teaching adults due to their rich life experiences as opposed to children (Vandergrift and Goh, 2012). However, teachers must be aware that "listeners' background knowledge can distort as well as support comprehension" (Lynch, 2009, p. 54). This in fact reveals the significance of comprehension monitoring, which distinguishes successful listeners from their less-successful peers.

The listening diaries of phase one further demonstrate the participants' possession of a relatively high degree of metacognitive knowledge about L2 listening. This knowledge, as confirmed by MALQ results, develops as a result of classroom instruction. The possession of metacognitive knowledge, according to Goh (2005), is "found to be generally true of all learners of different ages and language learning backgrounds" (p. 70). Table 5.1 in the previous chapter illustrates that all three types

of metacognitive knowledge emerged in the students' diary responses, but it was task and strategy knowledge, in particular, that were most prominent in phase one diaries. In response to the factors that influenced their listening comprehension, students' reports all related to comments on the nature, demands and purpose of listening: task knowledge. The most frequent responses in this respect were comments on vocabulary, types of input and existing knowledge and experiences. As mentioned previously, the boundaries between the three types of metacognitive knowledge are quite fuzzy; hence background knowledge was classified under both person knowledge as well as task knowledge.

The students' diary responses, thus, showed a higher degree of strategy and task knowledge, and some degree of person knowledge according to phase one diaries. However, the low volume of person knowledge did not impact negatively on the learners' development of both metacognitive knowledge and listening ability. It is task and strategy knowledge in particular, Goh (2005) says, which can improve comprehension performance. The results discussed above further support Goh's comment. The study conducted by Vandergrift (2002) produced similar results to mine in terms of the forms of metacognitive knowledge that emerged from student responses. In Vandergrift's study, the participants' answers to an all-class questionnaire provided evidence of their metacognitive knowledge, mainly the strategies of planning, monitoring and evaluation. The students' checklists further revealed their strategic knowledge, primarily the use of directed attention, self-management, selective attention, advance organization and comprehension monitoring. The majority of responses were on planning strategies, yet there were instances which demonstrate their awareness of the importance of monitoring strategies. The participants in Vandergrift's study also showed an awareness of the purpose, nature, and demands of the listening tasks, which is task knowledge. However, similar to my study, person knowledge was not as evident as strategic and task knowledge. Vandergrift accounts for this finding as being the result of either the participants being too young, or the methodology of the study. He is quite unsure of the reason for this. Yet in regards to my study, I would attribute this finding to the listening diary probes being context-specific, hence leading the students to reflect on the text they heard and the strategies they used to comprehend it, without having

them think much about themselves as L2 listeners and their self-efficacy in L2 listening.

A decrease in the number of idea units that emerged from students' responses to diary probe 4 (see Section 4.3.2.4) may indicate the participants' relative lack of evaluation strategies. Although results of the MALQ indicated an increase in the planning and evaluation factor, as discussed above, I would not consider this contradictory to what emerged from the diary responses in relation to evaluation strategies. The reason why I say this is that the planning and evaluation factor in the MALQ consists of five items, of which only one relates to evaluating one's performance after listening: 'After listening, I think back to how I listened, and about what I might do differently next time', as opposed to four items on planning strategies. Likewise, Vandergrift (2003a) tracked the development of his participants' awareness of the listening process and found in the participants' responses ample evidence of metacognitive knowledge in all three types. However, the only area that did not develop in either of the two tasks in his study was evaluation. Although there was slight evidence of evaluation in his students' reflections, Vandergrift states that they often did not complete the part on which they had to set goals for next time.

However, the strategy knowledge elicited in phase one diaries via probe 4 was mainly on note-taking, selective attention, directed attention and self-management. This is partly similar to the study by Liu and Goh (2006), who found that the four main metacognitive strategies used by their participants were pre-listening preparation, directed attention, selective attention and comprehension monitoring. The problems their participants reported facing when listening to texts in the classroom mainly had to do with vocabulary and sentence structure. This also corresponds to my findings in which vocabulary and types of input were the most frequently reported by participants as factors affecting their listening. On the contrary, other factors reported in Liu and Goh's study included: speed, memory load and attention span, which did not emerge as factors affecting the listening comprehension of participants in my study.

The small-scale study conducted by Goh and Taib (2006) mainly focused on examining task knowledge, through asking the learners about the factors that influenced their listening, as well as strategy knowledge, by asking them to observe what they have done to understand the listening texts. Avoiding person knowledge intentionally by the authors here is noteworthy, since, as mentioned above, this type of knowledge does not lend itself easily to reflection probes used for specific listening tasks. In contrast to findings of my study, there were more reports of factors that influenced listening comprehension here than that of strategy use. These factors mainly related to text, task, environment, as well as listener and speaker. The most commonly reported strategies in their study, however, were planning, directed attention, selective attention and inferencing, with inferencing and planning being the two most frequent strategies. Similar to my study, affective strategies were hardly ever mentioned in Goh and Taib's study, which I believe is not a surprising finding given that this set of strategies usually emerges in interactive listening rather than one-way listening.

The types of task knowledge which emerged from the participants' responses to phase one diary probes chiefly related to comments on vocabulary, types of input and prior knowledge (see Table 5.1). Similarly, Goh (1999) in her discussion of task knowledge in the light of interviews and learner diaries indicated that the factors which influenced learners' listening comprehension ordered in terms of frequency of mention were: vocabulary, prior knowledge, speech rate, type of input and speaker's accent. However, neither accent nor speech rate appeared to be a major issue for the participants in my study. A possible explanation for this may be that I used published textbooks that had very good quality recordings and standard speech rate and accents, hence the participants did not report any problems with speech and accent of the listening texts. In effect, Lynch (2009) states that "there is no research evidence that specific accents of English –native or non-native – are inherently more difficult than others for second language listeners to understand" (p.22). Lack of research evidence, however, does not mean that all accents are easily comprehended by L2 listeners. Further, the fact that vocabulary appeared to be a key factor playing a role in facilitating or hampering the listening comprehension of participants in my study presents a finding that is consistent with other listeners in other studies,

regardless of the context, given that "second/foreign language learners frequently attribute their listening problems to lack of vocabulary" (ibid: 38). Yet, when compared to the amount of research done on the relationship between vocabulary knowledge and reading ability in second language, "there has been relatively little into the links between vocabulary and listening" (ibid: 35).

As stated above, the EFL listening ability of participants in this study significantly increased by the end of the three-session metacognitive instruction phase. This finding corroborates other research evidence which demonstrates that listening practice with a focus on the process, not just the product, has merit (Goh and Taib, 2006, Vandergrift, 2002, Vandergrift, 2003a, Vandergrift and Tafaghoddtari, 2010). In the study by Vandergrift and Tafaghoddtari (2010), the experimental group outperformed the comparison group on the final listening comprehension test after receiving metacognitive instruction. In brief, results of their study indicate that the approach they followed, which sensitised language learners to the processes underlying listening, can develop L2 listening. Goh and Taib (2006) also assessed the impact of metacognitive instruction on listening ability by looking at the pupils' test scores before and after the study. There was also an improvement in the students' listening test scores by the end of the intervention. The general consensus among researchers in the field is that metacognition enhances both thinking and comprehension (Vandergrift and Goh, 2012). Lynch (2009) also states that a relationship between second language listeners' strategic awareness, strategy use and listening performance is well-established in the literature. Nonetheless, there is less evidence in the literature for the positive impact of strategy training on improved listening. Yet, the results of the previously mentioned studies as well as results of my study all seem to confirm the positive impact of metacognitive instruction, in particular, on L2 listening performance.

The results discussed above collectively demonstrate the positive impact metacognitive instruction had on participants in this study. The students reported more advantages than disadvantages of the metacognitive instruction from their perspectives (see Appendix G). This is another indication of how beneficial this phase was to the students despite its short span. In general, Paris and Winograd

(1990) indicate that by becoming aware of their thinking, students can enhance their learning. Among the benefits of metacognitive instruction reported in the literature and reflected in the results of this study is the shift of the responsibility for monitoring learning from the teacher to the learner (ibid; Vandergrift, 2002). Further, metacognitive instruction develops positive self-perceptions, increases confidence and motivation, and lowers anxiety among learners (Goh, 2008, Paris and Winograd, 1990). This type of instruction has also shown to improve listening performance, as confirmed by results mentioned above. Finally, research illustrates that it is the less successful students who potentially benefit the most from this form of instruction.

Although my findings corroborate those of other studies in the field, unlike other studies, I do believe that this phase should be used as an introductory one and has to be complemented with other forms of practice. The metacognitive instruction phase in my study took place over a short period of three one-hour sessions, yet the results reached are comparable to other studies which applied metacognitive instruction that spanned longer periods of time, such as the studies by Vandergrift and Tafaghoddtari (2010) over a semester, Goh and Taib (2006) eight lessons, and Cross (2011) five, 90-minute long lessons. Paris and Winograd (1990) also state that metacognition should not be viewed as the end goal for learning instruction. Rather, it is part of on-going thinking as well as problem solving and functions as a transitional stage to proficiency. The aim of any education, they say, is not to produce "reflective thinkers who are cautious and self-conscious about their own thinking" (p.22). That would, in fact, immobilize learning rather than nourish it. Therefore, the goal of metacognitive instruction, Paris and Winogard believe, is to equip learners with the knowledge and confidence they need to manage their own learning and to give them the power to be curious and passionate enough in their learning journeys. This signals the necessity of not restricting L2 listening teaching to metacognitive instruction, but using it as a means to an end, rather than an end in itself. Consequently, this study did not stop at the point of metacognitive instruction but went a step beyond by incorporating deliberate practice in L2 listening sessions.

6.2.2 Successful vs. Less Successful Participants

In terms of comparing successful to less successful participants, the MALQ results indicate that the former group had higher scores on the MALQ prior to the intervention. This confirms that successful students possess a wider repertoire of metacognitive knowledge even before being involved in formal metacognitive instruction. Two of the successful students made a similar comment that the metacognitive instruction phase took longer than needed, which is yet another indication that they already have a rather high degree of metacognitive knowledge and that this phase did not add much to them. Apparently, successful students tend to figure out metacognitive knowledge and strategies on their own, whereas other learners have to be taught these types of knowledge and strategies (Hartman, 2001a). In fact, research evidence indicates "a strong connection between proficiency and strategic behaviour" (Macaro, 2010, p. 290).

In terms of listening ability, however, the test scores of the two less successful students either underwent a decrease by the end of metacognitive instruction, as in Badriyah's case, or remained the same, as in Adeem's case. This may be an indication that the short span of phase one was not sufficient for the them. Yet their listening ability developed by the end of the study, indicating that they benefitted from the deliberate practice training. This finding does not support what Cross (2011) found in his study, where three of the four less-skilled listeners made significant gains throughout the study. Conversely, only one of the four more-skilled listeners in Cross' study achieved a higher mark in the post-test. The latter result is justified by Cross as due to the skilled listeners already having "a comparatively solid level of understanding and orchestration of bottom-up and top-down skills and strategies, so that the impact of participating in the pedagogical cycle made little difference to their comprehension" (p.414). Vandergrift and Tafaghoddtari (2010) also found that it was the less skilled listeners in the intervention group who showed greater improvement in their listening achievement when compared to their more skilled peers in the same group. Also, the study by Goh and Taib (2006) found that pupils with lowest grades in the pre-tests showed the biggest gains in the listening post-test. This is an indication that weaker students benefitted the most form the metacognitive instruction.

In terms of quantitative differences between the two ability groups, there was little difference in types of metacognitive knowledge reported, as shown in Tables 5.6 and 5.7 in the previous chapter. This finding further supports the view of Santos et al. (2008), who state that "there was little quantitative difference in use by different groups of subjects, suggesting that we needed to look at *how* they were using strategies and in what combinations" (p.122, italics in original). Macaro et al. (2007) also confirm the belief that "the more strategies the better has now generally been rejected" (p.168). Hence, although the two ability groups used more or less the same number of strategies, it should not be regarded as having the same amount of metacognitive knowledge. Quantitative differences between ability groups in terms of strategy use poses a challenge to "a research approach that involves simply counting the presence or absence of certain strategies, and then trying to establish a cause-effect relationship between strategy use and listening performance" (Graham et al., 2008, p. 66).

To further explain the point made in the previous paragraph, selective attention, note-taking, and use of prior knowledge were among the repertoires of the two ability groups, yet this would not be taken as an indication of the two groups being at comparable levels in terms of their metacognitive knowledge. The similarity in strategies used by the two ability groups discussed in my study corroborates previous results and confirms the view that "successful and less successful learners use very similar strategies but in less effective combinations" (Graham and Macaro, 2008, p. 751). In an investigation into the relationship between participants' French listening proficiency level on one hand and their strategic behaviour on the other hand, Graham et al. (2008) found that the strategy repertoire of the lower scorer consisted mainly of prediction of vocabulary, note-taking and selective attention. The higher scorer, on the other hand, used a number of metacognitive strategies, mainly double-checking and monitoring his comprehension, as well as selective attention. The fact that the lower scorer used selective attention and prediction strategies, although being characteristic of effective listeners, does not entail in any way that these strategies are helpful in themselves. Rather it indicates "that any strategy used needs to be used well and appropriately for it to be useful" (p. 66). The findings of this study relate to my study in a number of ways; one is that it was

comprehension monitoring that was apparently lacking in the less successful participants' repertoires; second is that students from different ability groups may use similar strategies but in less effective ways. The use of selective attention was reported by both ability groups in my study. Although the two groups may be using selective attention as a strategy, what they select to attend to is what leads to differences in their success as EFL listeners. Vandergrift (1998) explains that due to its ephemeral nature, listening is by necessity a selective process; hence, whatever is selected to be processed becomes significant in successfully comprehending the text. He further clarifies that whatever is selected for processing "may be related to the listener's use of metacognitive strategies" (ibid: 392). In the study he conducted, Vandergrift found that comprehension monitoring may be "a superordinate strategy" due to the fact that it directs other metacognitive strategies, including prediction and selective attention, along with cognitive strategies like inferencing and elaboration.

However, even among the same ability group, differences in strategy use exist. This confirms the view that the use of strategies is "highly individualized, even within one proficiency band" (Graham et al., 2008, p. 53). The effective use of comprehension monitoring was evident in the diary responses of one of the successful participants, Eman, who used monitoring strategies quite frequently. She used to compare and contrast what she understands from the listening texts with her existing knowledge. One word that occurred frequently in her responses was "logic". The consensus appears to be that comprehension monitoring is the strategy that distinguishes successful listeners from less successful ones (Goh, 2005, Halbach, 2000, Vandergrift, 2003b). The study Vandergrift (2003b) conducted "provides further evidence for a model of a more skilled listener who is in control of the listening process, actively engaged in planning for the task and monitoring incoming input for congruence with expectations to construct a mental representation of the text in memory, that is, to comprehend" (p. 485). He uses the word "orchestra" to illustrate the interaction between cognitive and metacognitive strategies. Meaning, Buck (2001) also explains, is not an entity found in the text which the listener has to find; it is rather "constructed by the listener in an active process of inferencing and hypothesis building" (p.29). This hypothesis building is what seems to be lacking in less successful listeners. Further, Goh (2005) clarifies

that "effective listeners make use of various information sources for monitoring and evaluating comprehension and are not 'trapped' into one interpretation because of prior knowledge" (pp. 73-74). It is the effective use of background knowledge which distinguishes expert listeners (ibid).

A surprising finding, nonetheless, was that the diary responses of one successful participant, Ameerah, did not reflect much metacognitive knowledge, despite her very high ability level. It was only towards the end of the study I knew from Ameerah that her mother was a native speaker of English. Hence, English was more or less a mother tongue for her. This may be an explanation why her diary responses did not reflect much metacognitive knowledge. It was interesting that she volunteered to take part in this study in the first place. The listening texts seemed not challenging enough for her, as she stated in one of the questionnaires. This, in fact, poses a major challenge for the teacher when dealing with a mixed ability group. She was one of the only two participants to state that she did not notice any change in her listening level in response to the final questionnaire. As Ericsson (2006b) explains "when the behaviours are automatized, mere additional experience will not lead to increased levels of performance" (p. 696). It seems that for her, knowledge of listening as a skill was automatized, hence she was not able to reflect on it in her listening diaries. Neither was she able to observe any further improvements in her performance as it seemed to reach "a stable plateau" (ibid: 687).

Automatization in the broadest sense, according to DeKeyser (2007), refers to "the whole process of knowledge change from initial presentation of the rule in declarative format to the final stage of fully spontaneous, effortless, fast, and errorless use of that rule, often without being aware of it anymore" (p.3). The chief idea in this quotation is "not being aware of it anymore," which seemed to be the case in Ameerah's situation. Ameerah represents automaticity, for as skill improves in this stage, cognitive involvement decreases, and the learner often loses the ability to verbally describe how she or he does the task" (Johnson et al., 2003, pp. 30-31). To counteract automaticity, the training should have exceeded her current level of performance, which would have consequently led to further improvements in her

listening ability level. As Ericsson (2006b) explains "further improvement of performance requires increased challenges" (p. 198).

To reiterate, the results of my study corroborate the studies reviewed in the previous two sections in terms of the positive impact of metacognitive instruction on students' metacognitive knowledge and L2 listening ability, as well as the prevalence of strategy and task knowledge in the participants' diary responses. It also supports the findings reached in regards to differences in metacognitive knowledge between successful and less successful listeners. However, the results of the studies mentioned above indicate that it was the less skilled listeners who favoured the metacognitive instruction, all the more reason for incorporating other forms of instruction in the L2 listening classroom. The following section will discuss the impact of deliberate practice on the participants' listening ability and metacognitive knowledge.

6.2.3   Impact of Deliberate Practice

By the end of the deliberate practice phase, there was a slight increase in the participants' metacognitive knowledge, although this increase did not reach statistical significance. When comparing this result to the results of phase one, it seems that, unsurprisingly, the metacognitive instruction phase had a larger influence on the participants' metacognitive knowledge. This demonstrates the significance of formal metacognitive instruction for the development of metacognitive knowledge, as previously stated. On the other hand, there was a statistically significant increase in the experimental group's listening ability by the end of the deliberate practice phase. Deliberate practice, Anderson (2005) explains, is assumed to "reduce the central cognitive load" (p.303). The cognitive load is very high in the case of L2 listening, hence, applying deliberate practice was expected to lead to a positive effect on L2 learners' listening level. Through enough practice, the reliance on general strategies as well as declarative knowledge would decrease, paving the way for proceduralization to take over (Kellogg, 1995).

As for the MALQ factors, problem-solving was one of the factors that increased by the end of this phase, along with directed attention and person knowledge. Metacognition is essential to understand how the task was performed (Schraw, 2001). However, it is likely that helping learners improve one aspect of metacognition, such as planning, may lead to improving others, e.g. monitoring (ibid: 4). Studies indicate that monitoring can be improved through practice and training. This seems to be confirmed by the MALQ factor results, as planning strategies significantly increased by the end of phase one, and gave rise to monitoring strategies which increased by the end of phase two of my study. This particular finding supports the positive impact of deliberate practice on the participants' performance, since "gaining expertise in a discipline brings with it the ability to monitor comprehension of information in that specialty" (Kellogg, 1995, p. 212). In fact, vanVelzen (2012) clarifies that the link between metacognitive knowledge and expertise relates to problem solving in that "it can help students become better problem solvers" (p. 366).

However, the participants' metacognitive knowledge continued to emerge, as evident from their diary responses during phase two. When asked about what facilitated their listening, the students' most frequent responses related to selective attention, directed attention, and advance organization, which are all instances of planning strategies. To verify their comprehension, however, the students relied on the teacher, comprehension monitoring and the notes they have taken while listening. As for the difficulties they faced while listening, students' reports all had to do with task problems, learner problems, and vocabulary. Hence, strategy knowledge was the most prevalent type of metacognitive knowledge during this phase of the study. Students made use of this form of metacognitive knowledge both to facilitate and to verify their comprehension. As Table 5.2 in the previous chapter shows, the diary probes in the deliberate practice phase elicited more strategic knowledge than any of the other two types of metacognitive knowledge: task and person knowledge. A possible explanation for this would be the positive impact deliberate practice had on the participants' strategic knowledge in particular.

When the students' diary responses are examined in the light of DP elements, evidence indicates that these elements have taken place (see Table 5.2). In particular, the role the teacher played in facilitating the tasks and providing feedback to the participants emerged as a major theme in response to what students did to check their listening comprehension. The presence of a teacher for the purpose of guidance and providing feedback is a major requirement for deliberate practice. As Ericsson et al. (1993) stated "in the absence of adequate feedback, efficient learning is impossible and improvement only minimal" (p.367). In the area of L2 research, however, DeKeyser (2007a) says "empirical research on practice has been quite limited in recent decades" (p.8). Yet, the research carried out so far reveals the significant positive impact it has on learners, even though issues regarding when and how to provide feedback to students remain unresolved. Feedback is indeed an essential element in deliberate practice, but researchers believe that it is "hard to decide how often to provide feedback on performance in complex tasks" (p.4). In this study, I attempted to give feedback to the students by commenting on their summaries, for lecture texts, and doing the task as a whole class, in the case of multiple-choice questions. This appeared to be sufficient, given that listening takes place in the minds of the learners and how well they perform the task is so far the only means to determine the success or failure of their comprehension. Breaking down tasks into manageable components and the frequency of providing feedback on performance in complex tasks are both issues which remain hard for the teacher to decide on (ibid: 4).

6.2.4 Evaluating the Intervention

The results presented in the previous chapter indicated that the experimental group outperformed the comparison group on the final MALQ. Controlling for baseline results, post-MALQ results for the experimental group were also higher. Furthermore, having controlled for listening baseline scores, post-test TOEFL scores for the experimental group were higher. This demonstrates the positive impact of the intervention with its two phases on the participants' levels of metacognitive knowledge and L2 listening. Vandergrift and Tafaghoddtari (2010) make the claim that the pedagogical cycle they followed in their study (see Section 2.5.2.2) "offers language learners a promising avenue for developing L2 listening skills" (p. 8).

They neglect the fact that it was the less skilled participants who benefited most from this process approach. This entails that, contrary to their claims, the process-based approach they followed in their study is not necessarily helpful to more-skilled listeners, who seemed not to benefit as much from this approach. The sessions became boring for the participants in the study by Vandergrift and Tafaghoddtari (2010) who commented on the final questionnaire that they "started to get rather bored with the routine". This is another shortcoming, which poses a threat to the validity of this approach. It is also a trap we as educators need to avoid, because if the lesson becomes tedious, then the benefit is minimal to the learners.

This supports my argument that metacognitive instruction should be kept short and aim mainly at raising the learners' metacognitive awareness. Including a short metacognitive instruction phase allows the less skilled learners to acquire new ways to aid them in coping with the listening input. This short phase would also reinforce the good practices more successful listeners already do, and by keeping it short, avoid this group of learners responding negatively to instruction. Although metacognitive instruction was short in my study, the more successful students still thought it was longer than what they needed. Research indicates that successful learners "possess more metacognitive awareness and engage in more self-regulatory behaviour than low achieving students" (Hartman, 2001a, p. 33). However, "metacognition is necessary, but not sufficient, for academic success" (ibid: 34).

The final questionnaire provided a lot of insight into the positive response of the participants to this two phase study. The majority of respondents noticed a change in their listening level by the end of the study. Further, most participants seemed to favour the deliberate practice phase over the metacognitive instruction one. The positive response to DP sessions, especially instances like "*through DP I can understand more*," " *DP, as I realized what I had to do*" and "*DP helps in focusing attention on listening*" provides evidence for the effectiveness of directing the students' attention to the importance of motivation and concentration at the start of each training session. Further, comments such as "*I started to like listening*" provide all the more evidence for the positive influence of this two phase study on students' self-efficacy.

Besides the integration of metacognitive instruction and deliberate practice, another possible explanation for the students' positive response to the intervention was the focus placed on feedback and reflection. The study carried out by Graham (2007), which aimed at examining the effect of L2 listening strategy training on the students' self-efficacy, found that the high scaffolding group made the biggest gains in terms of self-efficacy for listening as well as pre and post listening scores. It was this group which received strategy training along with feedback on their strategy use and on their reflective diaries. The results of this study shed light on the significance of both feedback and reflection in L2 listening classes. Thus, the two elements of feedback and reflection should be kept standard practice in L2 listening lessons due to their positive impact on both listening ability and self-efficacy in listening.

6.3   Implications of the Study

Although the term deliberate practice has been mentioned in the area of second language acquisition (Ortega, 2009), few if any attempts have been made to take this a step further by applying it into the language classroom. One reason may be that researchers are uncertain about how this may differ from drills and practice methods of the audio-lingual era. In many language classrooms, however, listening remains "a mysterious 'black box', for which the best approach seems to be simply 'more practice'" (Rost, 2001, p. 13). Based on the positive outcomes of my study, I propose a theory of learning that combines the use of both metacognitive instruction and deliberate practice in the L2 classroom. The metacognitive approach put forward by Vandergrift and Goh (2012) does not appear to be sufficient for producing proficient L2 listeners. The results presented in my study and in other studies discussed above indicated that the metacognitive approach is not equally helpful to all learners. In fact Sternberg (2001) indicates that metacognition represents "part of the abilities that lead to student expertise, but only as part" (p. 247). Further, as previously mentioned, Hartman (2001a) believes that metacognition is essential, however not enough for academic success (p.34). This calls for the importance of integrating deliberate practice with metacognitive instruction and provides support to this claim. The theory I propose is a theory of learning through practice rather than learning through instruction and is perforce

learner-centred. The role of the teacher in this approach is similar to that of a coach in sports practice. The teacher sets an achievable, yet challenging task, provides feedback, opportunities for repetition, and reinforces the significance of concentration and motivation at the start of each session. The approach I used in my study which aimed at reinforcing the significance of these two entities for effective practice seemed to work, as the comments made by the students on the final questionnaire suggest.
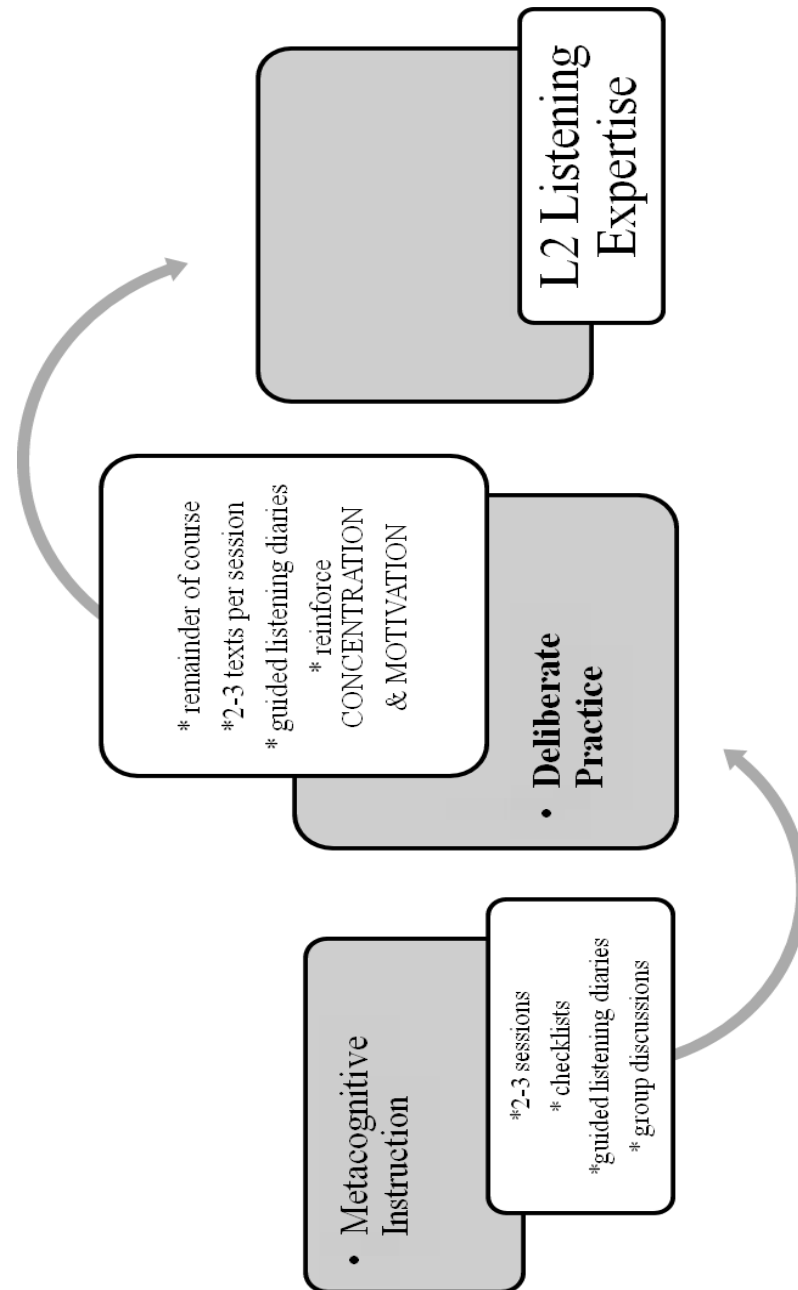
Further, the results of my study suggest that the form of metacognitive instruction I followed in the sessions, which relied merely on raising the students' metacognitive awareness, is satisfactory. It has led to significant gains in both metacognitive knowledge and listening ability. However, one point that emerged concerned the participants' opposing responses to the metacognitive instruction phase. Successful participants believed it lasted longer than required, yet it was helpful to them in becoming conscious of strategies they had unconsciously been applying. Less successful participants, on the other hand, valued this phase more and said they started using some strategies as a result of taking part in it. Sternberg (2001) says "an expert typist who starts thinking about where the keys are will type much more slowly" (p. 249). Hence, although metacognitive activities may be quite useful in many aspects of language learning, they are not necessarily always called for. In fact, "students need to learn to automatize, which means, in practice, learning to bypass certain conscious metacognitive activity" (ibid). Thus, it could be helpful to conduct metacognitive instruction in ability groups due to the different metacognitive knowledge students have before being involved in this form of instruction. Further, for this type of instruction to bear fruit, it should be made an integral part of any listening curriculum (Goh, 2008).

In regards to the deliberate practice component in my proposed theory, an issue that is recognised in the literature is whether and how expertise may be taught. The instructional paradigm used in this study followed the common research paradigm mentioned by Johnson (2005), as previously stated. Although expert performance in fields like music, chess, and sports can be relatively easy to define, the characteristics of superior performance in L2 listening have yet to be clearly

defined. Further, the positive influence of deliberate practice in the previously mentioned fields is well-established, yet for some reason people do not seem to accept that what is required for gaining proficiency in most mental functions is similar to that required for acquiring proficiency in physical or motor skills: deliberate practice. Derry (1990) explains that "as every sports coach knows, the most powerful pedagogical technique for building this expertise is practice: practice is equally essential for developing expertise in cognitive domains . . . becoming an expert at anything means very hard work" (p. 370). However, DP is not like any other learning task that is given to the students to perform. The students themselves have to be willing to practise and fully engaged in the practice in order for DP to have a positive effect on their levels of performance. The key word in this approach is *deliberate*, and this is what distinguishes it from other mindless or joyful forms of practice. The students must be fully focused on working to move beyond their current levels of performance. To improve one's level in a particular skill, practice should revolve around that skill and nothing else.

Another theoretical contribution I attempt to put forward is the relationship between the two governing concepts of this study: metacognitive knowledge and deliberate practice. Apart from the role the teacher plays by setting the task, facilitating repeated performance and providing feedback to the student, the remaining two vital components of deliberate practice, which are motivation and concentration, are closely related to metacognitive knowledge. Motivation and concentration are referred to in the literature on metacognition as self-management and directed attention respectively. These two are examples of planning strategies which fall under strategic knowledge. Hence, this suggests that by developing strategic knowledge, and with the presence of the teacher as a coach, deliberate practice will most likely take place. The results of the deliberate practice phase, which witnessed an increase in listening ability as well as the emergence of strategy knowledge as the most frequent type of metacognitive knowledge, further support this claim. In brief, I attempted in the previous part to suggest a theory of learning that combines the use of both metacognitive instruction and deliberate practice in the L2 classroom. I also attempted to examine the relationship that holds between these two essential

concepts. Based on what has been discussed above, I describe what a DP-based L2 listening course looks like, summarized in Figure 6.1 below.

L2 Listening Expertise

* remainder of course
*2-3 texts per session
* guided listening diaries
* reinforce CONCENTRATION & MOTIVATION

• **Deliberate Practice**

• Metacognitive Instruction

*2-3 sessions
* checklists
*guided listening diaries
* group discussions

Figure 6.1 DP-based L2 Listening Course

In this study, I propose a deliberate practice approach to L2 listening instruction, in which metacognitive instruction is an essential element but not an end in itself. It has been twenty years now since the term deliberate practice was first coined by Ericsson et al. (1993), but it still has not made it into the language classroom. This study was an attempt to achieve that aim. Field (2008a) states that a significant amount of evidence already exists from brain imaging indicating that a vast number of interrelated processes support listening, and that the areas behind these processes are widely distributed across the brain. This entails that a sub-skills approach to teaching listening is not a very effective one. This would also be an argument for deliberate practice where the focus is on practising the skill in general, rather than dividing it into component skills. The students' positive response to DP provides further support to the argument that DP does have a place in the L2 classroom. This positive response also reflects that DP applies equally well to learners of different ability groups. DP provides the form of practice required to improve current level of performance by reminding the students of the significance of motivation and concentration.

In both phases of my study, the role of the teacher was that of a facilitator or coach. This entails that the teacher sets the environment for learning to happen, by setting appropriate tasks, being there for students to coach and provide feedback on accomplished tasks, and allowing for repeated exposure to the text when necessary. That is fairly the task of the teacher and the rest is left to the student. Hence, in this approach, the focus shifts from the teacher to the learner which makes the classroom more learner-centred. The significance of practice should not be underestimated, as Ericsson (2006b) explains "until most individuals recognize that sustained training and effort is a prerequisite for reaching expert levels of performance, they will continue to misattribute lesser achievement to the lack of natural gifts, and will thus fail to reach their own potential" (p. 701). To develop any of their L2 skills, I would advise my students, as a result of undertaking this research, to practise regularly in short periods of time and to ensure the presence of motivation and concentration in order to move beyond their current levels of performance. The DP approach, however, works only with learners who are willing to work on improving their performance.

This study attempted to apply metacognitive instruction into listening classes. Teachers in my context should be encouraged more to teach for metacognition, which is lacking in my context, as mentioned in Chapter 1. Teaching for metacognition, according to Hartman (2001b), means "teachers think about how their instruction will activate and develop their students' metacognition, or thinking about their own thinking" (p. 149). Further, teachers should provide students with materials to deliberately practise listening outside the classroom, or direct them to websites that would include listening practice suitable for their current levels. The metacognitive phase should be part of any course that incorporates both metacognitive instruction and deliberate practice. The metacognitive instruction attempts to provide the students with declarative knowledge they need to carry out listening tasks. This approach to L2 listening comprehension instruction challenges the current comprehension approach practice to L2 listening (see Figure 2.1). Although the comprehension approach involves some substantial elements, such as motivation and activating schema knowledge, it is clearly lacking in other significant components. It does not acknowledge the importance of metacognitive strategies, such as: selective attention and directed attention. Field (2008a) argues for keeping the extensive/intensive phases tradition as well as allowing for multiple replays throughout the listening lesson. Repeated listening, Field explains, "enables the learner to build increasingly on the information that is extracted" (p.15).

The study also recognizes the significance of reflection and hence, suggests making reflection a standard practice in the listening classrooms. Thus, I included it in Figure 6.1 above in both phases of the DP-based L2 listening course. Graham (2007), however, reports that students in their study completed far less diaries than anticipated and that this aspect of the study was disliked by participants. Yet, the teacher who was most successful in getting her students to complete the diaries dedicated time for that in the classroom. That said, the best way to use listening diaries is as part of classroom instruction, rather than homework to take away. Reflection, Schraw (2001) says, is one of a number of elements that play an essential role in the process of students understanding the difference between cognition and metacognition. In fact, "extended practice and reflection play crucial roles in the construction of metacognitive knowledge and regulatory skills" (p.8). However, there should be a variety of ways for having students reflect on their listening in

order to avoid them getting bored of the routine, and hence not fully engaged in the reflection act. The use of the guided listening diaries presented a set off from the current practice in the L2 listening classroom in which the students have to focus on the process of listening rather than the product of it.

However, I believe that the notion of deliberate practice should be applied more frequently in higher education contexts. Goh (2005) explains that "a hallmark of expertise is the possession of rich domain or field knowledge, accumulated through past experience and training" (ibid: 65). Furthermore, deliberate practice should be "intense, prolonged, and highly focused efforts to improve current performance" (Baron and Henry, 2010, p. 49), something young learners may not be able to attend to. Deliberate practice is also better done in small groups so that teachers can provide students with continuous feedback and tailor the tasks according to their students' needs. Establishing a listening resource centre would certainly help in terms of deliberate practice. Students would be coming to the centre at their own will in their free times which thus ensures to some extent the presence of the two most significant elements of DP: motivation and concentration. The rest is left for the tutor to facilitate the listening practice by providing the appropriate tasks and giving feedback to the learners. Students should be briefed on how to make best use of their time in the listening centre. It would be helpful to equip the centre with enough copies of guided listening diaries and listening checklists in both the target language as well as the L1, and hence the students are given the freedom to select the language they feel more comfortable with to reflect on their listening processes.

It should not be assumed, however, that the deliberate practice approach to teaching listening would take us back in time to the routine drilling activities associated with language laboratories before the 1970s. Deliberate practice, as previously mentioned, sets practice apart from joyful activities and is an antithesis of flow. The sense of flow is actually witnessed when one is immersed while performing the skill and, thus actually not concentrating. This lack of concentration may not lead to improvement in one's current level of performance. To work on moving beyond the current level, concentration is a major requirement. Motivation, however, is there both in DP and the sense of flow, yet the latter is intrinsically motivating, whereas

the former is not necessarily so. For it to bear fruit, DP entails a lot of commitment from both sides: the teacher and the learner. The latter is required to exert the effort, motivation, concentration, and time to deliberately practise L2 listening. The former, on the other hand, should commit to setting achievable tasks, providing continuous feedback and allowing for repeated performance on the same or similar tasks.

Listening continues to receive the least systematic attention from both teachers and instructional materials (Vandergrift and Goh, 2012). Apart from note-taking skills and a few other cognitive strategies, learners are rarely taught how to systematically approach a listening text. Learners find listening to be the skill which they feel most insecure about (Field, 2008a). The first step before educating L2 learners is to educate the teachers on how listening should be taught. Vandergrift and Goh (2012) clarify that one reason for learners being left to develop their listening abilities on their own is that a lot of teachers are unsure of the proper way to teach listening. This study is only one step on a long journey towards the effective application of deliberate practice in the language classroom. Yet the results of this study present a rather promising start.

6.4 Contributions of the Study

I believe that my study has contributed to the current L2 listening research in a number of ways:

- The most significant contribution of this study is applying the notion of deliberate practice in L2 listening instruction. The application of deliberate practice elements, particularly reinforcing the significance of motivation and concentration, facilitated the development of the participants' listening ability in this study. The majority of participants expressed a positive attitude to deliberate practice. This demonstrates that deliberate practice does in fact have a place in the L2 classroom. Along with the elements identified by Goh (2005) as components of L2 listening expertise, deliberate practice is an essential element that she has undoubtedly overlooked. It is definitely a concept whose time in the L2 classroom has come.

- This study contributes to the current research field by uncovering the effects of metacognitive instruction on the metacognitive knowledge and listening ability of Saudi, female students. Further, another contribution in this respect was the use of the MALQ (Vandergrift et al., 2006) in a Saudi tertiary level context to track any development in the students' metacognitive knowledge over the course of the study.

- By integrating metacognitive instruction and deliberate practice into the teaching sessions of L2 listening, I attempted to change the current teaching practices of L2 listening and make the sessions more learner-centred. The participants' positive response to the intervention, in general, and to deliberate practice in particular is promising.

- The consensus among researchers in the area of L2 listening is that it is the least understood skill (Vandergrift, 2010) and although it is a complex skill worthy of study, it remains under-researched (Graham, 2003). Therefore, this study is a contribution to the growing body of research in the area of L2 listening, by corroborating previous findings on the positive impact of metacognitive instruction and further by providing insight into the positive effect of deliberate practice.

6.5 Limitations of the Study

This study was useful in terms of exploring the impact of both metacognitive instruction and deliberate practice on the EFL listening ability level of female, tertiary level Saudi students. Although the study reached its desired aims, it was not without limitations, some of which I acknowledge below:

- First, time posed a constraint in terms of the length of the intervention and the number of participants that could possibly take part in it. The intervention sessions involved a small number of students attending Listening 4 course. This was basically done on ethical grounds; voluntary participation. Hence, to generalize the results for larger groups, the study should have included a larger number of participants as well as participants

from various levels. The results presented in this study, therefore, are not conclusive and should be interpreted as distinct possibilities that require being validated with a larger sample and over a longer period of time.

- Due to administrative constraints, I was not able to strictly control the conditions of my study which led to a number of consequences. One, it was not possible to eliminate the effects of normal listening class practice neither was it possible to carry out the intervention sessions in the participants' normal listening class time. This consequently led to the experimental group receiving more tuition time than the comparison group. Therefore, I cannot claim the exclusive impact of this two-phase study on the experimental group's improvement. However, showing more improvement than the comparison group on the post-test, as well as the participants' positive responses to the influence of the study on their listening ability may be taken as strong indications of the positive effects of this intervention.

- Further, participants in this study were engaged in one type of listening: one-way listening. Hence, results of this study do not necessarily apply to listening situations that are more interactional in nature. However, this type of one-way listening is most common in the listening strategy research (Lynch, 2009), and is the norm in most listening instruction classes (Vandergrift and Goh, 2012). This type of listening, nevertheless, appears to remain under-researched (Macaro et al., 2007). Also, the limited nature of listening texts used in this study, conversations and academic lectures only, may have resulted in a limited number of strategies elicited through the diaries.

- I also acknowledge that the listening texts used in this study were not challenging enough for some high-level participants. However, this is an expected obstacle when dealing with mixed ability groups. Had I had the available time and resources, I would have conducted the study in small groups of similar levels to be able to pitch the level of listening texts

accordingly. The mean scores for participants in the comparison and experimental groups were $M = 25.71$ and $M = 22.45$ out of 40 respectively, which is an indication of their intermediate listening proficiency level. I used texts within their level. Yet, due to the participants having varying levels of competence, the result was mixed views about the difficulty of the texts, as the open-ended questionnaires revealed.

- The use of the same listening test as pre, in and post-test may have may have had an effect on the end results. Also, doing a complete listening TOEFL test for the first time may have been new to some participants and could have resulted in a lower gain of scores. However, as Vandergrift and Goh (2009) explain, the complexity of SL/FL listening leads to compromises in assessment.

Based on the aforementioned limitations, I put forward some suggestions for future research below.

6.6 Suggestions for Future Work

Despite recent developments in the field, L2 listening remains the least understood of the four language skills. This results in the teaching and testing of L2 listening being complex and challenging issues (Vandergrift and Goh, 2009). This study was useful particularly in exploring the impact of deliberate practice on the listening ability of EFL learners. Yet, this is only one step on the path to an effective application of deliberate practice in the language classroom. Hence, the field apparently remains ripe for further research. Also, from the discussion of findings as well as limitations of the study presented above, a number of suggestions can be put forward in regards to future research into this area:

- The discussion above suggests that deliberate practice is a concept whose time has come in the field of language learning. With the wealth of resources available nowadays, deliberate practice can be easily facilitated by language teachers. Yet, one issue worth pursuing in future studies is whether

deliberate practice would have the same influence on the students' listening ability without the presence of an introductory metacognitive instruction phase or not.

- Although this was a small-scale study and involved only the skill of listening, results suggest there is a place for deliberate practice in the development of language skills in general. It would be useful, therefore, to extend the application of DP across other language skills, including L2 reading, writing and speaking, and find out whether deliberate practice has the same positive effects or not. Also, a longitudinal study would presumably lead to better results in terms of expert performance, which is the ultimate aim behind deliberate practice.

- In terms of metacognitive knowledge, and as demonstrated in the discussion above, instruments used in this research and other studies in the field have led to the elicitation of mainly task and strategy knowledge, and not much person knowledge. Although the MALQ has a number of statements on person knowledge, it was not enough to elicit the learners' awareness to this type of metacognitive knowledge. Hence, it would be helpful to develop instruments that facilitate the elicitation of more person knowledge.

- It would be interesting to find out whether carrying out the same research design with language learners of different ages, contexts, and language backgrounds would yield similar results or not.

- As mentioned previously, an issue mentioned in the literature regards whether and how expertise may be taught. Thus, more work can be done in terms of whether and how L2 expertise can be taught. It would be insightful to conduct in-depth case studies of expert and novice L2 learners to tap into differences between the two ability groups in terms of deliberate practice, rather than strategies which have been the focus of many previous studies in the field of L2 listening. The main element to investigate in this respect is

whether students set regular times in which they are fully concentrated on improving their current levels of language performance or not.

- It would be beneficial in terms of gaining more insight into DP to investigate if a control group did the same amount and type of listening practice as an experimental group but without reinforcing the significance of motivation and concentration at the start of each practice session, whether this would lead to similar results or not.

- In the field of L2 teacher cognition, an area that seems to be lacking in research is teachers' beliefs and practices regarding L2 listening, as identified by Professor Simon Borg in his inaugural talk at the University of Leeds on February the 7th, 2012. This is an area worthy of research, as uncovering the teachers' beliefs and practices will presumably lead to more effective changes regarding the teaching of L2 listening. As Graham et al. (2011) indicate "the skill is not fully understood by practitioners" (p. 451). There are, however, attempts in this regard by Graham and colleagues in a project which investigates the teachers' beliefs and understanding of teaching L2 listening in England. It would be helpful to investigate this topic further in a variety of other contexts and language backgrounds.

6.7 Concluding Remarks

A very long and stressful journey is coming to an end. Yet, by reaching this stage, I realize how rewarding doing my PhD has been academically, professionally and personally. I have learnt a lot of valuable lessons from this path I have taken. Academically, this was a long-term project which required a lot of skills and expertise, which I eventually gained while moving through the different stages of my journey. One big challenge I faced at the beginning was finding an original contribution to the field. I was not satisfied with merely replicating what other researchers have done in different contexts. The enthusiasm I could sense in my supervisors' way of talking about DP during our meetings always had a positive

impact on me. Towards the end of my study, I came to know that Jeremy Harmer, who is a big figure in ELT, started talking about DP and its application in the classroom, which also had a very profound impact on me. This is definitely an indication that the time for DP in the language classroom has come.

Professionally, my practices as an EFL teacher will inevitably change to the better as a result of undertaking this research. Similar to many listening teachers who are unsure about how they can help students develop their listening abilities, I was one day at a similar position. However, having done this research, I will return to the field more confident and better equipped with practical ways to help learners cope with the difficulties of L2 listening. Teaching a listening course will no longer be a subject to avoid as a lecturer. Rather, I see myself in a position to lead many changes in the way L2 listening is delivered in my context.

Personally, I have a different approach to life matters now. Being away from my home country, my family and friends, having to juggle my studies with taking care of my small family, and having to write an original, sophisticated and lengthy piece of work in a language other than my mother tongue were all obstacles on my journey. However, I kept on going, and the obstacles obviously made me stronger and more capable of coping with difficulties. As a result of my research, I now recognize the value of reflection and apply it unconsciously in my daily life. My present journey has also made me realize the value of multi-tasking, playing many roles at the same time was definitely the trigger for this. Patience, perseverance, and determination are the key lessons I leave with. This PhD journey is simply the most revealing and transformational phase I had to go through in my life; a journey from which I have already started to reap the rewards.

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Appendices

Appendix A   COLT Sample Listening (4) Test

Name:……………………… *ID no.* ……....…….. *Group*: …… *Total Mark*: ..../25

Part (1)

Listen to a conversation between a professor and a student, and then answer the questions you hear.

Question 1

....

Question 2

....

Question 3

....

Question 4

Do you think the student's first answer to the professor is a *strong YES or a weak YES*?! Is he being *formal or informal*? How did you know?

....

....

……………………………………………………………………………………………

Part (2)

You are going to listen to a lecture with the title "*Non-verbal Communication: Your Body is Talking*" twice. Take notes, and then answer the following questions:

1. What is kinesics?

   ………………………………………………………………………………………
   …………..

2. What are universal emotions? Give two examples.

   ………………………………………………………………………………………
   ………………………………………………………………………………………
   ………………………………………………………………………………………

3. Give one example of how non-verbal communication can differ from one culture to another.

   ………………………………………………………………………………………
   ………………………………………………………………………………………
   ………………………………………………………………………………………

4. Give two of the commonly used abbreviations from the lecture you listened to.

   1/. ....   2/. ....

5. **Write a well-organized outline based on the lecture. Use one of the formal outline numberings:**

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

   _____

Good luck..

Appendix B   Ethical Approval

Research Degree Transfer Assessment:
Academic Integrity, Safeguarding Data and Ethical Requirements

To be completed by the candidate and submitted with the transfer report

Candidate Name:	Nasrin S Altuwairesh	Student ID Number	200282613
Title of Report	Expertise in L2 Listening: Metacognitive Instruction and Deliberate Practice in a University Saudi Context		

Ethical Considerations of the Project

Before completing this section of the form, please read the guidance notes published at
http://researchsupport.leeds.ac.uk/index.php/academic_staff/good_practice/university_ethics_policies/

(i)   Is ethical review required?   **Yes X** No ☐ | If Yes please go to section (ii) or If No please go to section (v)

(ii)   Has ethical approval been granted?   **Yes X** No ☐ | If Yes please go to sections (iv) or If No please go to section (iii)

(iii) **If you have answered No to question (ii)** please provide additional information here:

(iv)   **If you have answered Yes to question (ii)** please state from which body approval was sought (eg Research Ethics Committee (for research with animals), University Faculty Research Ethics Committee for research that should be reviewed), NHS or other lead institution **AND** give reference number for approval (if appropriate)

AREA Faculty Research Ethics Committee / University of Leeds

(v)   I confirm that I am aware of and comply with the University's procedures for the review of ethical issues arising from research involving animals; human participants, their data or their tissue; or the potential for significant environmental impact.
http://researchsupport.leeds.ac.uk/index.php/academic_staff/good_practice/university_ethics_policies/

Signature of Candidate	Nasrin Altuwairesh		Date:9/11/2011

Statement of Academic Integrity & Safeguarding the University's Data

I confirm that the attached transfer report is my own work and I have not presented anyone else's work as my own and that full and appropriate acknowledgement has been given where reference has been made to the work of others

I have read and understood the University's published rules on plagiarism and also any rules specified at School/Faculty level. I understand that if I commit plagiarism I can be expelled from the University and that it is my responsibility to be aware of the University's regulations on plagiarism and their importance.
http://www.leeds.ac.uk/rds/assets/word/policies/guidance_plagiarism_procedures.doc

I consent to the University making available to third parties (who may be based outside the EEA) any of my work in any form for standards and monitoring purposes including verifying the absence of plagiarised material. I agree that third parties may retain copies of my work for these purposes on the understanding that the third party will not disclose my identity

I confirm that I am aware of and comply with the University's policy for "Safeguarding Data – Storage, Backup and Encryption" http://campus.leeds.ac.uk/isms/policies/safeguarding/

Signature of Candidate	Nasrin S. Altuwairesh	Date: 9/11/2011

Sept 2011

1

Appendix C   Official Permission to Collect Data at COLT

بســم الله الرحمـن الرحيــم

Kingdom of Saudi Arabia	المملكة العربية السعودية
Ministry of Higher Education	وزارة التعليم العالي
King Saud University	جامعة الملك سعود
College of Languages and Translation	كلية اللغات والترجمة
Dean's Office	مكتب العميد

Date: ٢ ١٤٢ / ٦/٥   No.: ٢/ ١٥/ ٥ ٧٠٩٢   التاريخ: ١٤٢ / ٦/٥   الرقم: ٢/ ١٥ ٧٠٩٢

سعادة الأستاذ الدكتور/ عميد شؤون أعضاء هيئة التدريس والموظفين   الموقر

السلام عليكم ورحمة الله وبركاته...

إشارة إلى موافقة سعادة الأستاذ الدكتور/ وكيل الجامعة للدراسات العليا والبحث العلمي (المرفقة) على توصية مجلس كلية اللغات والترجمة بشأن الطلب المقدم من الأستاذة/ نسرين سلامة الطويرش بشأن القيام برحلة علمية إلى المملكة اعتباراً من ٢٠١١/٢/١٩م الموافق ١٤٣٢/٣/١٦هـ ولمدة ثلاثة أشهر لتتمكن من جمع المادة العلمية اللازمة لبحثها للدرجة الدكتوراه.

عليه آمل من سعادتكم التكرم بالإطلاع ؛ والتوجيه لمن يلزم بإكمال اللازم.

أشكر لكم طيب اهتمامكم، وتقبلوا خالص التحية.

عميد كلية اللغات والترجمة

د. فايز بن علي الشهري

- صورة مع التحية لسعادة وكيل الكلية للدراسات العليا والبحث العلمي.
- صورة مع التحية لسعادة وكيلة الكلية.
- صورة مع التحية لسعادة الأستاذة نسرين الطويرش مع تمنياتنا لها بالتوفيق.
- صورة مع التحية لإدارة تنمية الموارد البشرية.
- صورة مع التحية لوحدة التوثيق.

Appendix D   Informed Consent Letter (English Version)

Dear Student,

You are invited to participate in a study entitled "Expertise in L2 listening: Metacognitive Instruction and Deliberate Practice in a Saudi University Context". Before you decide to be involved in this study, please take some time to read the following information which explains the aim of the study and the role you are expected to play in it.

☞*What is the aim of this study?*

The study is part of a research done to earn a PhD in TESOL from the University of Leeds in the United Kingdom. The aim of this study is to investigate the impact of "deliberate practice" on the listening level of students at the College of Languages and Translation, which is expected to have a positive impact.

☞ *Why have I been chosen?*

The main reason for approaching you is because you are enrolled on the Listening (4) course. However, volunteering to join in this study has no effect whatsoever on your results in the Listening (4) course; whether you choose to participate or to withdraw from this study will not affect you at all.

☞*What does participating in this study entail?*

We will arrange to meet as a group for one hour per week for a period of eight weeks in one of the College's language laboratories. These meetings will be divided as follows:

1st meeting: the listening section of the TOEFL test will be administered to identify your listening level in English. You will also be asked to fill in a questionnaire of 21 items about listening strategies.

Other meetings: the meetings will mainly focus on listening to texts in English. You will be asked to reflect on your listening after each text by filling in a listening diary. The aim of this diary is to help you identify the strengths and weaknesses you have when listening to texts in English.

Last meeting: by the end of the study, the TOEFL listening test will be administered again to identify whether the study had an impact on your ability to listen in English or not.

☞ *How will the data by used?*

The data you provide will be used confidentially. Pseudonyms will be used when analysing the data, instead of real names. Further, you have the right to look at any data that is relevant to yourself once it is analysed.

Finally, if you have any further questions, you may contact me on twairesh_n@yahoo.com.

Appendix E   MALQ (English Version)

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. For example:

	Strongly disagree	Disagree	Slightly disagree	Partly agree	Agree	Strongly agree
I like learning another language	1	2	3	4	5	6

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

2. I focus harder on the text when I have trouble understanding.   1 2 3 4 5 6

3. I find that listening is more difficult than reading, speaking, or writing in English.   1 2 3 4 5 6

4. I translate in my head as I listen.   1 2 3 4 5 6

5. I use the words I understand to guess the meaning of the words I don't understand.   1 2 3 4 5 6

6. When my mind wanders, I recover my concentration right away.   1 2 3 4 5 6

7. As I listen, I compare what I understand with what I know about the topic.   1 2 3 4 5 6

8. I feel that listening comprehension in English is a challenge for me.   1 2 3 4 5 6

9. I use my experience and knowledge to help me understand.   1 2 3 4 5 6

10. Before listening, I think of similar texts that I may have listened to.   1   2   3   4   5   6

11. I translate key words as I listen.   1   2   3   4   5   6

12. I try to get back on track when I lose concentration.   1   2   3   4   5   6

13. As I listen, I quickly adjust my interpretation if I realize that it is not correct.   1   2   3   4   5   6

14. After listening, I think back to how I listened, and about what I might do differently next time.   1   2   3   4   5   6

15. I don't feel nervous when I listen to English.   1   2   3   4   5   6

16. When I have difficulty understanding what I hear, I give up and stop listening.   1   2   3   4   5   6

17. I use the general idea of the text to help me guess the meaning of the words that I don't understand.   1   2   3   4   5   6

18. I translate word by word, as I listen.   1   2   3   4   5   6

19. When I guess the meaning of a word, I think back to everything else that I have heard, to see if my guess makes sense.   1   2   3   4   5   6

20. As I listen, I periodically ask myself if I am satisfied with my level of comprehension.   1   2   3   4   5   6

21. I have a goal in mind as I listen.   1   2   3   4   5   6

Appendix F   End of Phase One Questionnaire Responses

No.	Q 1	Q2	Q3	Q4
1.	Listening to some news broadcasts & taking some notes & listening to programs & lectures	Nearly 3 times a week There is no definite time but almost 2 hours	I benefitted very much but the level of practice was much easier than the level of test	Yes but I wished it was at the same level as the test because the test is much more harder
2.	Listening to news, stories and programs in English	2-3 for an hour	I benefitted a great deal, I learnt new strategies and I didn't realize that listening as a skill is interesting before this study	Yes definitely this study has helped me and motivated me a lot due to God and then your efforts
3.	Listening to news broadcasts on English channels and listening to broadcasts	More than 3 times for 5- 10 minutes	Good, despite the simplicity of the texts, because it made me more aware of strategies used	So far yes, because it seems that I am becoming more confident in my listening ability
4.	Mostly I try to follow the news in English like CNN and sometimes documentary programs if it is interesting or watching part of a series or film	Almost 4 times for an hour or less	I benefitted from listening strategies like encouraging myself and recalling topics that may be relevant to the text	Hopefully my listening skills will improve by the end of this course. So far I cannot judge how much I improved. The lectures we listen to in this course are easy & wonderful & cannot at all be compared to what we listen to in our actual listening course as well as what we have in exams
5.	I listen to news headlines and I follow programs in order to listen to them	I don't set a certain amount of time or definite time to listen, it depends on my free time but when I listen I just listen & don't write	I benefitted in understanding the text according to the division you gave us	Yes, but I feel that I improved a lot and benefitted and learnt from reading the title first and guessing the ideas then listening carefully and writing only the main ideas in the first listen & then

				writing details the second time
6.	I am used to listening to programs & conversations & speaking in English daily	I don't deliberately practice, it is a daily routine	It helped me know some strategies	I was expecting difficult texts & lectures & I don't feel that my listening skill has improved much yet but I am looking forward to the coming lectures
7.	Series, movies, TV shoes, listening lab on the net	None, only according to my free time	My listening skills have improved to some extent	I felt how easy listening skill is
8.	Watching movies without subtitles although some contain terms difficult to understand	Once a week	I benefitted from taking part in this study a great deal	Yes because I started to discover my weaknesses which are hastiness in answering & not taking into account minor details
9.	Listening to the news sometimes	I don't in fact deliberately practice listening	Excellent. I feel I have improved to some extent	Yes because of having more sessions for practice weekly
10.	Listening to lectures & conversations	There is no definite time but on average once a week	I benefitted from strategies given and how to deal with my mistakes as well as intensive listening 7 I can notice improvement in my level	Yes because I was hoping to know my level through a TOEFL test but because of lack of time I wasn't able but this study has given me the chance to
11.	Through the internet by using some links	Twice- half an hour	70%	Yes because this study was based on & included everything I needed
12.	Movies/ music/ tv shows	I don't deliberately practice	I benefitted a lot form it	No but I benefitted a lot form it because the listening we get in exams is much more harder than what we practice

13.	Listening to BBC radio & movies	Once a week I listen to BBC until I get bored	I think that I have developed my skill, I can notice that	yes
14.	Nothing	Very, very rarely	Almost 80 %	Yes I learnt new steps that organize & make listening easy
15.	Watching TV or visiting some websites on the internet	Not weekly, through watching TV programs	It benefitted me a lot due to the importance of listening	Yes because of my poor level in listening
16.	Watching movies & through music & talking to foreigners	3 times for half an hour	Good	Yes
17.	Listening to foreign songs	None, sometimes I only listen to foreign songs & try to write words	Good	Yes we got to know new strategies that would help us improve more in listening
18.	There is nothing in particular, sometimes I listen to the news, watch movies, download voice clips from the internet & watching foreign clips on youtube	There aren't any definite hours	It helped me to focus on main points and be fast in writing	Yes because we had training on TOEFL test
19.	Listening to the news or radio or English recreation programs	There is no certain time for me, it depends, sometimes 3 weeks pass without listening to anything it all depends on exams & how busy I am, but I have not missed any listening lecture since level 1 & no other chance to improve my listening	As for this study, I have benefitted a lot for the more I listen the better my listening skill becomes especially that the content of the sessions is the same as the book & tests we get at college but at a lower level, hence the chance for this skill to improve is better	Yes but not sufficiently, for the content of listening tests in the college are harder than what we listen to in this study, and the tasks in this study have not touched upon writing a summary for what has been heard nor writing an outline but were mainly MCQs or subjective

Appendix G   End of Study Questionnaire Responses

No.	Strategy Phase		DP Phase		More beneficial Phases	Noticed any change in listening
	Dis.	*Adv.*	*Dis.*	*Adv.*		
1.	None	Started applying strategies	none	Started applying & realizing concentration	DP much better	Yes, I started to like listening & want to improve it more, before listening classes were boring for me
2.	Longer than needed	I became aware of what I used to do before and after listening	Not discussing new vocab	--	DP "practice makes perfect"	Yes, especially in terms of finding out the main ideas & logical relations
3.	Longer than needed	More focus	--	--	DP	No, but I became aware of things I used to do unconsciously
4.	None	Help in pre, while & post-listening	--	Through DP I can understand more	DP as it helps in listening practice	Yes, definitely. How I can improve my listening & what I need to do pre, while & post-listening
5.	None	Benefitted a lot from strategies	Frustration at beginning	--	DP I realized what I had to do	Yes, through practice everything becomes easier
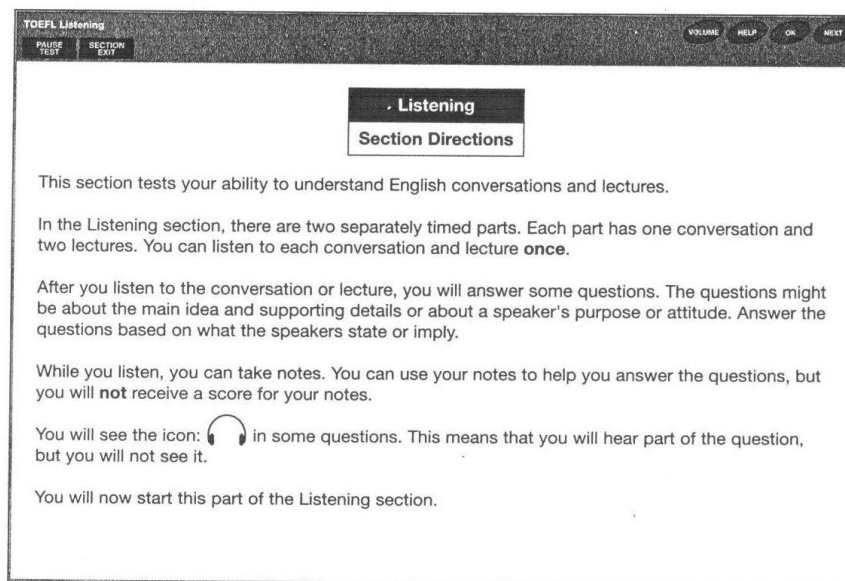
6.	--	Topics were relevant	time	--	Strategy, it served as a real basis for me	Yes, added lots of strategies to me & effective ways plus intensive training
7.	--	Planning strategies	Absence of planning	--	Strategy because I determine main points before starting to listen	Yes, noticeable improvement.
8.	--	--	--	--	Both	Yes
9.	In exams I forget all about strategies because I am anxious	Reading Qs before listening	--	It helps in concentration & note-taking	DP because it helps in concentrating and not losing attention	No
10.	--	Getting to know new ways that help in note-taking & answering Qs	Not applying all new strategies	focus	DP	Yes, because I listened & practised more & I improved in terms of note-taking
11.	Easy topics	--	No variety in Qs only summaries	More difficult texts	DP	Yes, the study has changed my perspective about listening & developed my confidence
12.	Cannot apply pre-listening strategies in exams	I learnt to encourage myself before listening	--	More intensive listening	DP because it includes more training	Yes, I started to like listening, it improved my listening

						ability
13.	I think strategies are personal	--	--	--	Strategy because there is a motive to focus	I think so, I got to know my weaknesses
14.	--	Benefitted from group discussion	--	Helps in focusing attention on listening	DP	Yes, a lot. It added a lot of strategies to me which I was unaware of before

Appendix H   TOEFL Listening Test

LISTENING COMPLETE TEST 2

Listening
Section Directions

This section tests your ability to understand English conversations and lectures.

In the Listening section, there are two separately timed parts. Each part has one conversation and two lectures. You can listen to each conversation and lecture **once**.

After you listen to the conversation or lecture, you will answer some questions. The questions might be about the main idea and supporting details or about a speaker's purpose or attitude. Answer the questions based on what the speakers state or imply.

While you listen, you can take notes. You can use your notes to help you answer the questions, but you will **not** receive a score for your notes.

You will see the icon: in some questions. This means that you will hear part of the question, but you will not see it.

You will now start this part of the Listening section.

Questions 1–5

Listen as a student consults with a university office worker.
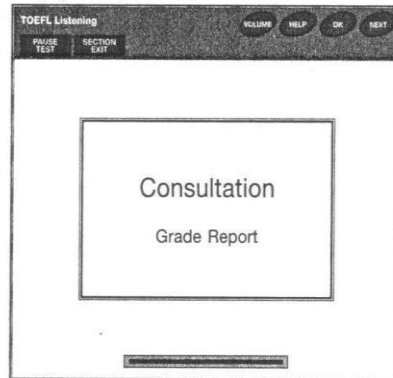
1. Why does the student go to see the office worker?
   - Ⓐ To determine why his grades were so low
   - Ⓑ To find out why he did not receive a grade report
   - Ⓒ To ask where he could find the student with the same name
   - Ⓓ To replace an incorrect document with a correct one

2. What incorrect assumption did the clerk make?
   - Ⓐ That the student had already talked with the professor
   - Ⓑ That grades had not yet been sent out
   - Ⓒ That the student's problem should be dealt with by the professors
   - Ⓓ That the student knew the other person with the same name

3. What is stated about the grade report the student received?

   Click on 2 answers.

   - Ⓐ It had the correct name.
   - Ⓑ It had an incorrect name.
   - Ⓒ It listed the correct classes.
   - Ⓓ It listed incorrect classes.

4. What did the confusion turn out to be?
   - Ⓐ Two students had similar names.
   - Ⓑ Two students lived at the same address.
   - Ⓒ Two students took the same classes.
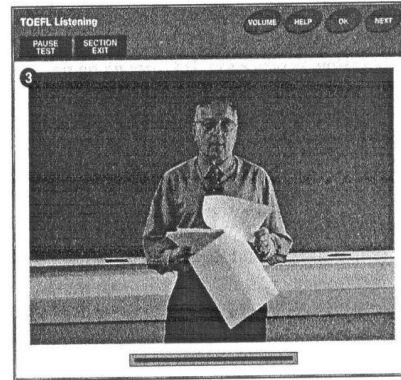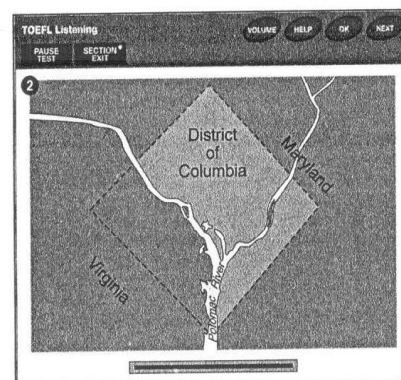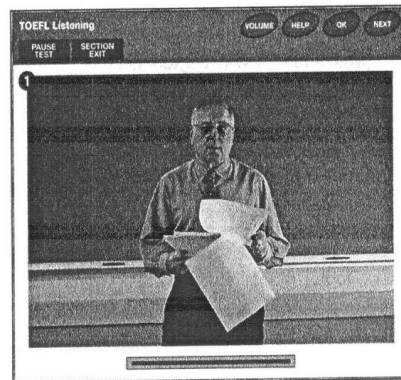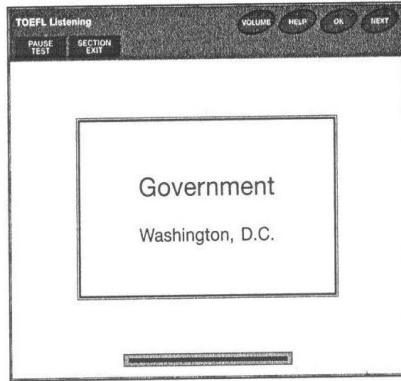   - Ⓓ Two students took courses from the same professors.

5. What did the office worker promise to do?

   Click on 2 answers.

   - Ⓐ Verify information with the student's professors
   - Ⓑ Contact the student with the same name
   - Ⓒ Prepare another grade report for him to pick up
   - Ⓓ Send out a new grade report

Questions 6–11

Listen to a lecture in a government class.

Government

Washington, D.C.

6. What does the professor mainly discuss in the lecture?
   - Ⓐ How Washington, D.C. got its name
   - Ⓑ Where Washington, D.C. is located
   - Ⓒ How Washington, D.C. is governed
   - Ⓓ How Washington, D.C. differs from other U.S. cities

7. Which name has NOT been used for the city discussed in the lecture?
   - Ⓐ Columbia
   - Ⓑ Washington City
   - Ⓒ District of Columbia
   - Ⓓ Washington, D.C.

8. Listen again to part of the lecture. Then answer the question. 🎧

   Why does the professor say this: 🎧

   - Ⓐ Because he thinks the students are not familiar with the topic of the lecture
   - Ⓑ Because he expects that everyone has been to Washington, D.C.
   - Ⓒ Because he wants to introduce the topic of the lecture to the students
   - Ⓓ Because he is trying to slow down the pace of the lecture

9. What two points make Washington, D.C. different from other U.S. cities?

   Click on 2 answers.

   - Ⓐ It was named, in part, after Columbus.
   - Ⓑ It is not part of any state.
   - Ⓒ It is on the Potomac River.
   - Ⓓ It became self-governing only recently.

10. Is each statement true about Washington, D.C. and the state of Virginia? **This question is worth 2 points** (2 points for 4 correct answers, 1 point for 3 correct answers, and 0 points for 2, 1, or 0 correct answers).

    For each answer, click in the YES or NO column.

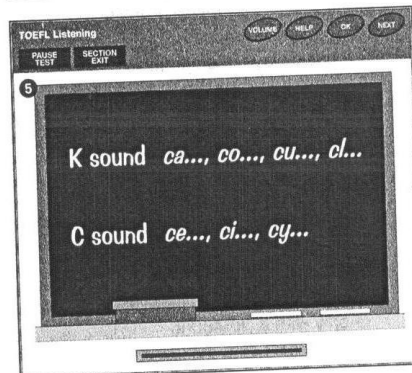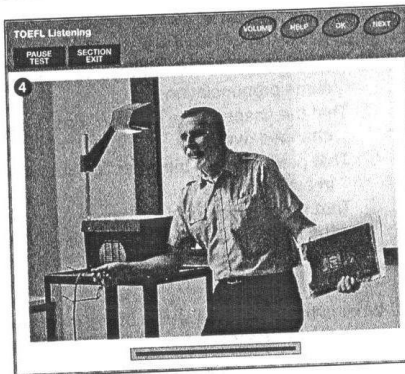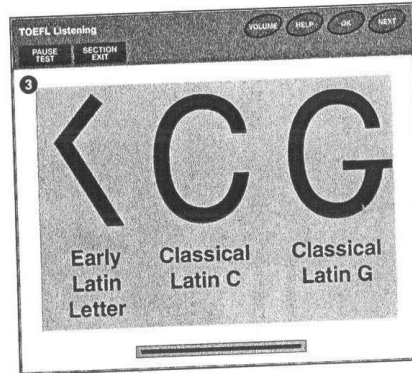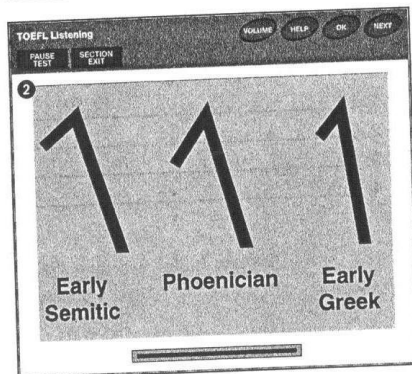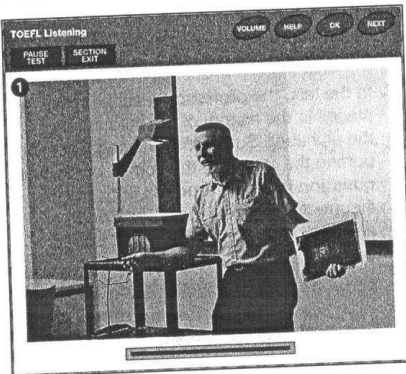 | | YES | NO |
    |---|---|---|
    | Part of the original state of Virginia was used to create Washington, D.C. | | |
    | Washington, D.C. used to be part of the state of Virginia | | |
    | Part of Washington, D.C. was returned to the state of Virginia | | |
    | Today, Washington, D.C. is part of the state of Virginia | | |

11. What is stated in the lecture about the government of Washington, D.C.?

    Click on 2 answers.

    - Ⓐ In the beginning, it did not elect its own government.
    - Ⓑ In the beginning, it did elect its own government.
    - Ⓒ Today, it does not elect its own government.
    - Ⓓ Today, it does elect its own government.

Questions 12–17

Listen to a lecture in a linguistics class.

Linguistics

The Letter C

Early Latin Letter — Classical Latin C — Classical Latin G

1

4

2

Early Semitic — Phoenician — Early Greek

5

K sound *ca..., co..., cu..., cl...*

C sound *ce..., ci..., cy...*
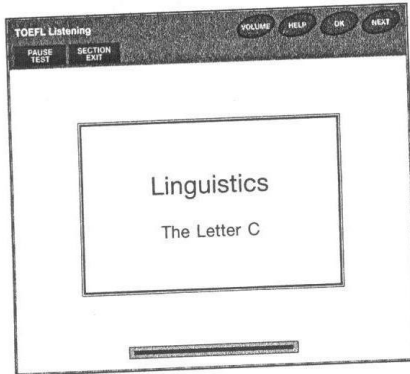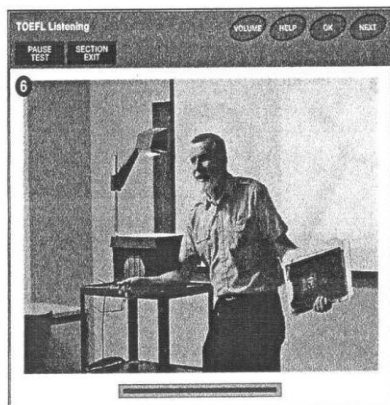
12. What is the main idea of the lecture?
- Ⓐ That the letter "c" has always had the same pronunciation
- Ⓑ That the shape of the letter "c" has changed over time
- Ⓒ That precursors of the letter "c" existed in early cultures
- Ⓓ That various historical influences caused the letter "c" to have two different pronunciations

13. What is true about the shape of the third letter of the alphabet?
- Ⓐ It has always been rounded.
- Ⓑ Initially it was angular, but later it became rounded.
- Ⓒ It has always been angular.
- Ⓓ Initially it was rounded, but later it became angular.

14. What is true about sounds in early languages?

Click on 2 answers.

- Ⓐ In early Greek, the third letter of the alphabet was pronounced like a "g."
- Ⓑ The "c" in early Latin was pronounced only with a "k" sound.
- Ⓒ In classical Latin, the letter "c" had a "g" sound.
- Ⓓ In classical Latin, a "c" with a line through it had a hard "g" sound.

15. Which of the following are true, according to the lecture?

Click on 2 answers.

- Ⓐ In 1066, the Normans defeated the Saxons.
- Ⓑ In 1066, the Saxons defeated the Normans.
- Ⓒ Because of the French influence, the letter "c" took on an "s" sound.
- Ⓓ Because of the French influence, the letter "c" took on a "g" sound.

16. Which of the following English words most likely begin with an "s" sound?

Click on 2 answers.

- Ⓐ Coxswain
- Ⓑ Cytoplasm
- Ⓒ Curmudgeon
- Ⓓ Cephalization

17. In the talk, the professor describes the stages in the history of the third letter of the alphabet. Summarize the sequence by putting the stages in the correct order. **This question is worth 2 points** (2 points for 4 correct answers, 1 point for 3 or 2 correct answers, and 0 points for 1 or 0 correct answers).

Click on a sentence. Then drag it to the space where it belongs. Use each sentence only once.

It had only a "k" sound.
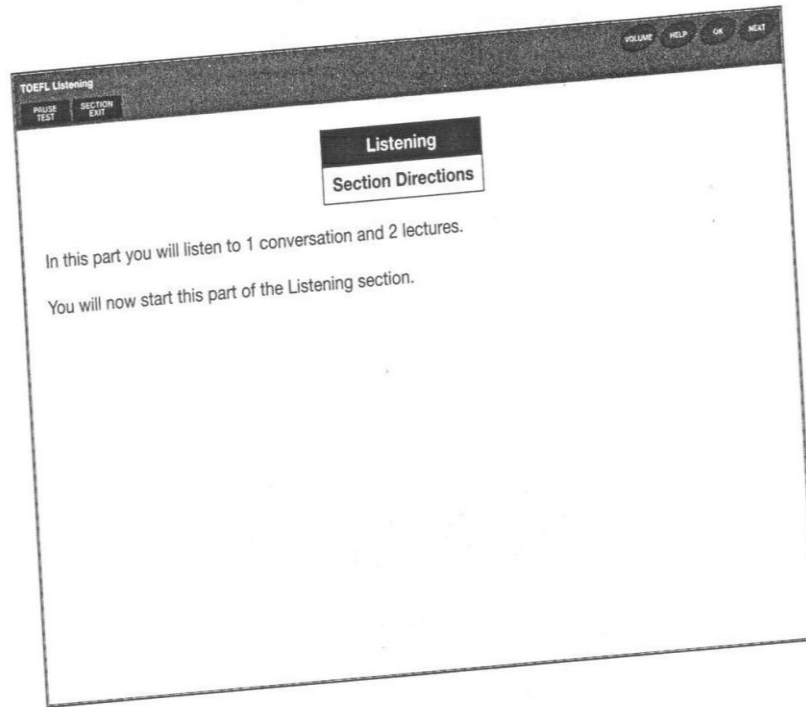It had only a "g" sound.
It had both a "k" and an "s" sound.
It had both a "k" and a "g" sound.

1. _____
2. _____
3. _____
4. _____

TOEFL Listening

PAUSE
TEST

SECTION
EXIT

Listening

Section Directions

In this part you will listen to 1 conversation and 2 lectures.

You will now start this part of the Listening section.

Questions 18–22

Listen as a student consults with a professor.
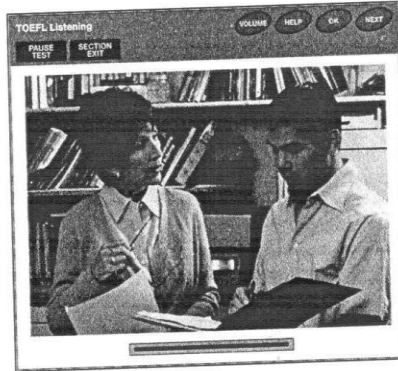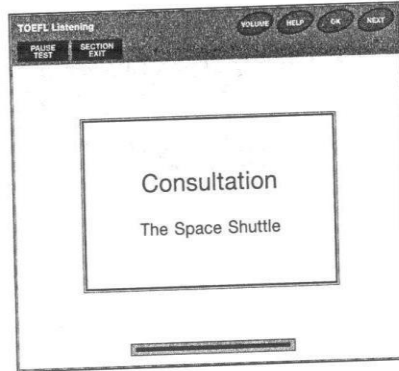
18. Why does the student want to talk to the professor?

    Ⓐ To discuss something he read

    Ⓑ To clear up some confusion from a previous lecture

    Ⓒ To get some help with a homework assignment

    Ⓓ To have a conversation about an interesting topic

19. Listen again to part of the passage. Then answer the question. 🎧

What does the professor mean when she says this: 🎧

    Ⓐ "I'll create a quiz."

    Ⓑ "I'll try to figure out what you mean."

    Ⓒ "You'll answer some questions."

    Ⓓ "I'll add the parts you don't know."

20. Which sources of power did the student have in his notes?

Click on 2 answers.

    Ⓐ The main engine

    Ⓑ The smaller engines

    Ⓒ The boosters

    Ⓓ The batteries

21. Drag the appropriate purpose to the box below each power source. **This question is worth 2 points** (2 points for 3 correct answers, 1 point for 2 correct answers, and 0 points for 1 or 0 correct answers).

Click on a phrase. Then drag it to the space where it belongs. Each answer will be used one time only.

Is to lift the shuttle off the ground and then return to Earth	Is to lift the shuttle off the ground and then help it get close to orbital velocity	Is to push the shuttle into orbit

The purpose of the main engine	The purpose of the boosters	The purpose of the smaller engines

22. What is the purpose of the parachute?

    Ⓐ To break the fall of the boosters

    Ⓑ To help the shuttle return to Earth

    Ⓒ To slow down the main engine

    Ⓓ To steady the smaller engines

Questions 23–28

Listen to a lecture in a geology class.

---
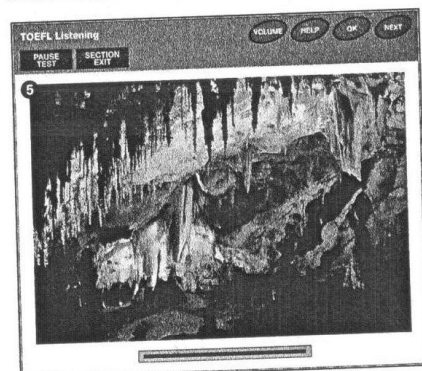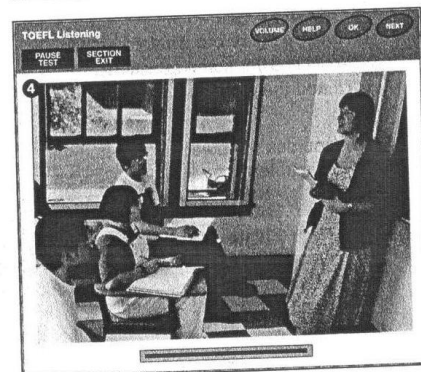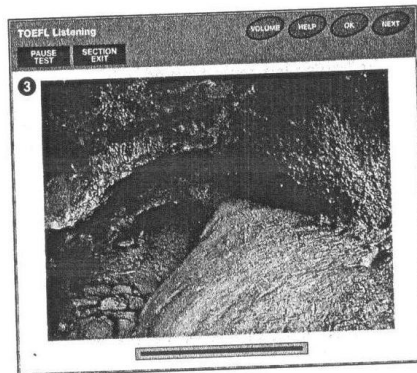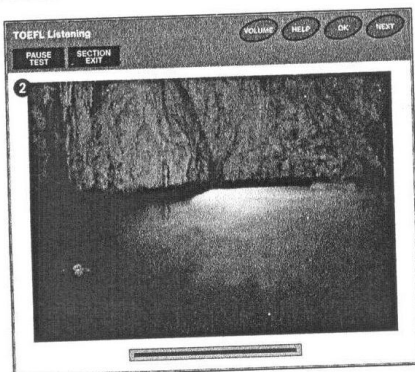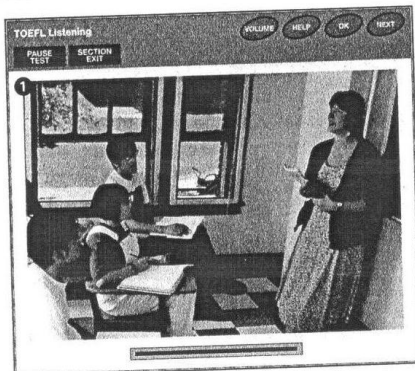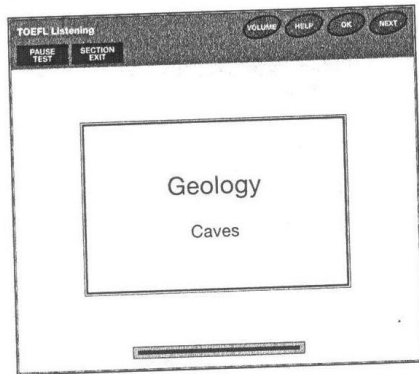
23. What main point does the professor make about various types of caves?

    Ⓐ They are named after the area in which they are found.

    Ⓑ They are named after the process by which they were formed.

    Ⓒ They are named after the people who discovered them.

    Ⓓ They are named after the features in their interiors.

24. Listen again to part of the passage. Then answer the question. 🎧

    How does the professor seem to feel about answering the student's question?

    Ⓐ It is impossible to answer the question.

    Ⓑ Answering the question is not necessary.

    Ⓒ It is quite all right to answer the question.

    Ⓓ Answering the question can be postponed.

25. Which caves are discussed in the lecture? **This question is worth 2 points** (2 points for 3 correct answers, 1 point for 2 correct answers, and 0 points for 1 or 0 correct answers).

    Click on 3 answers.

    Ⓐ A sea cave called Blue Grotto

    Ⓑ A lava cave called Carlsbad Caverns

    Ⓒ A solution cave called Carlsbad Caverns

    Ⓓ A solution cave called Blue Grotto

    Ⓔ A lava cave called Lava Beds National Monument

26. What is stated in the lecture about where the caves are found?

    Click on 2 answers.

   Ⓐ Lava Beds National Monument is found in Hawaii.

    Ⓑ Carlsbad Caverns is found in California.

    Ⓒ The Blue Grotto is found in Capri.

    Ⓓ Lava Beds National Monument is found in California.

27. Drag the appropriate description of the way each type of cave was formed to the box below the type of cave. **This question is worth 2 points** (2 points for 3 correct answers, 1 point for 2 correct answers, and 0 points for 1 or 0 correct answers).

    Click on a phrase. Then drag it to the space where it belongs. Each answer will be used one time only.

Are created by erosion	Are created during volcanic eruptions	Are created by weak acids dissolving rock

Lava caves	Solution caves	Sea caves

28. What is NOT a usual way for a solution cave to develop an entrance?

    Ⓐ An earthquake lifts the cave opening to surface levels.

    Ⓑ Erosion exposes a cave opening.

    Ⓒ An area collapses, exposing an entrance to the cave.

    Ⓓ Pounding surf wears away an entrance to the cave.

Questions 29–34

Listen to a discussion in a biology class.
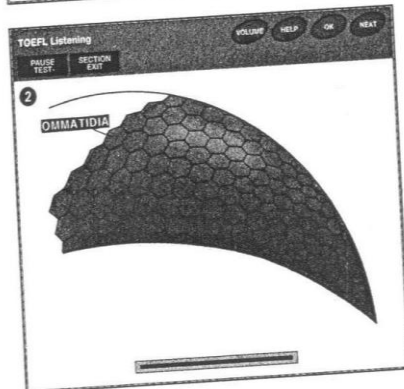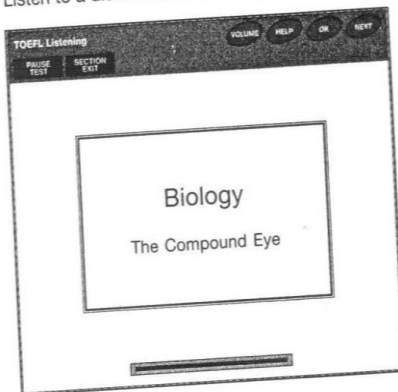
29. How is the information in the passage organized?

   Ⓐ The causes of a certain phenomenon are explained.

   Ⓑ Various types of compound eyes are contrasted.

   Ⓒ A topic is explained through an extended example.

   Ⓓ The steps of a process are outlined.

30. What is stated in the lecture about ommatidia?

   Click on 2 answers.

   Ⓐ There are thousands of ommatidia on a compound eye.

   Ⓑ The ommatidia each have thousands of sides.

   Ⓒ The ommatidia cover the surface of a compound eye.

   Ⓓ The ommatidia all point in the same direction.

31. What is NOT stated in the lecture about the butterfly?

   Ⓐ It has a compound eye.

   Ⓑ It is nearsighted.

   Ⓒ It can discern movement well.

   Ⓓ It has a six-sided eye.

32. Are these statements true about the compound eye? **This question is worth 2 points** (2 points for 4 correct answers, 1 point for 3 correct answers, and 0 points for 2, 1, or 0 correct answers).

For each answer, click in the YES or NO column.	YES	NO
A compound eye can easily detect tiny movements.		
A compound eye can focus extremely well.		
It is currently believed that a compound eye can see compound pictures.		
It is currently believed that a compound eye can see a single detailed image.		

33. Listen again to part of the passage. Then answer the question. 🎧

   Why does the professor say this: 🎧

   Ⓐ She is presenting a concrete example of a difficult idea.

   Ⓑ She is contrasting the actions of two insects.

   Ⓒ She is injecting a bit of humor into the lecture.

   Ⓓ She is suggesting something for the students to try.

34. What is the most likely title for Chapter 3 of the text for this class?

   Ⓐ The Brain and Light

   Ⓑ Eye Structures

   Ⓒ Detection of Light and Motion

   Ⓓ Butterflies

Appendix I

Performance checklist for listening

(Place a check mark in the 'yes' column when verifying each statement)

Before listening	*Yes*
I understand the task (what I have to do after I have finished listening)	
I know what I must pay attention to while I listen	
I have asked the teacher for clarifications, if necessary	
I have attempted to recall all that I know about the topic	
I have attempted to recall what I know about the type of text I will listen to and the type of information I will probably hear	
I have made predictions on what I am about to hear	
I am ready to pay attention and concentrate on what I am about to hear	
I have encouraged myself	

After listening	*Yes*
I concentrated on the task to be accomplished	
I attempted to verify my predictions	
I revised my predictions accordingly	
I focused my attention on the information needed to accomplish the task	
I used background noises, tone of voice, and other clues to help me guess at the meaning of words I did not understand	
I used key words, cognates, and word families to understand the text	
I used my knowledge of the context and of text structure to understand the text	
I evaluated the logic/plausibility of what I understood	

In order to improve my performance, next time I will _____
_____

(Adapted from Vandergrift, 1999)

Appendix J   Goh' Coding Scheme

A. Person Knowledge

1. Cognitive processes during listening

a. Stop and search for meanings of words

b. Think of words and spell them out mentally

c. Translate words into L1

d. Reconstruct meaning from words heard

e. Visualize all the words that are heard

2. Problems during listening

a. Taking notes or reading subtitles of films interferes with processing

b. Cannot distinguish important points

c. Slow to recall meaning of words that sound familiar

d. Do not recognize sounds of words which they know in writing

e. Understand individual words, but do not get overall meaning

f. Miss the rest of the text when there is a lapse in concentration

g. Miss the next part when thinking about words or interpretation

h. Cannot remember words/phrases they have just heard

i. Cannot divide streams of speech into words or parts of a sentence

j. Mistake one word for another similar-sounding one

3. Obstacles to listening comprehension

a. Limited vocabulary or academic terms

b. Phonological modifications e.g. tress, link-ups

c. Particular types of accent

d. Idiomatic expressions

e. Types of input with an unfamiliar structure

f. Inefficient memory

g. Fast speech

4. Obstacles to listening development

a. Own personality

b. Social environment

B. Task Knowledge

1. Factors that affect listening comprehension

    a. Phonological modifications/prosodic features e.g. link-up, stress

    b. Unfamiliar vocabulary

    c. Different varieties and local accents

    d. Speech rate

    e. Types of input (e.g. natural speech, conversation, news broadcast)

    f. Good and bad times for listening

    g. Interest in a topic and purpose of listening

    h. Existing knowledge and experience

    i. Physical factors (e.g. noise, fatigue)

    j. Emotional states (e.g. pressure, nervousness, anxiety)

    k. Existing knowledge and past experience

    l. Length and structure of sentences

2. Input useful for developing listening (and reasons given)

    a. News broadcasts (continuity and repetitions)

    b. Songs (interesting and relaxing)

    c. BBC World Service radio programmes (variety)

    d. Programmes about language learning (informative)

    e. Videos (visual and contextual clues*)*

3. Nature of second language listening

    a. Similarities with listening to first language

    b. Differences from listening to first language

    c. Dependence on other language skills

    d. Need for active listening

C. Strategy Knowledge

1. Strategies that assist comprehension and recall

    a. Use visual clues, e.g. pictures, slides, body language

    b. Activate knowledge of context from titles, etc.

    c. Ignore unfamiliar words

    d. Take notes

    e. Recognize discourse markers

    f. Recognize tones/intonation features

    g. Guess or infer meanings

    h. Pay attention to repetitions

    i. Visualize the setting/subject

    j. Use existing knowledge to interpret

    k. Ask speakers to repeat

2. Strategies for developing listening

    a. Talk to competent speakers frequently

    b. Listen to different varieties of English and local accents

    c. Listen to all kinds of materials

    d. Improve vocabulary

    e. Develop specific listening skills

    f. Listen to different types of input and be familiar with their organization and structure

    g. Be familiar with pronunciation of words and learn about phonological modifications

    h. Listen to things one enjoys or is interested in

    i. Make use of subtitles in films to check interpretation

3. Strategies that do not always work

    a. Guess/infer meaning of words and phrases

    b. Use existing knowledge

    c. Ask speaker to repeat

    d. Read subtitles of films

Based on (Goh, 1997)

Appendix K   Metacognitive Listening Strategies & their Definitions with Representative Examples

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.

Planning Strategies	Definitions	Examples
1a. Advance organization	Clarifying the objectives of an anticipated listening task and/or proposing strategies for handling it.	• I read over what we have to do. • I try to think of questions the teacher is going to ask.
1b. Directed attention	Deciding in advance to **attend in general** to the listening **task** and to ignore irrelevant distractors; maintaining attention while listening	• I listen really hard. • I pick out the words that are familiar so that ... (in combination with **inferencing**)
1c. Selective attention	Deciding to **attend to specific aspects** of language input or situational details that assist in understanding and/or task completion.	I listen for the key words. I establish the speakers in the conversation, their relationship by tone of voice, how they will address each other. This will limit the topics of discussion (in combination with **planning, voice inferencing,** and **elaboration).**
1d. Self-management	Understanding the conditions that help one successfully accomplish listening tasks and arranging for the presence of those conditions.	• I try to get in the frame of mind to understand French. • I put everything aside and concentrate on what she is saying.

2. *Monitoring:* Checking, verifying, or correcting one's comprehension or performance in the course of a listening task.

Monitoring Strategies	Definitions	Examples
2a. Comprehension monitoring	Checking, verifying, or correcting one's understanding at the local level.	• I translate and see if it sounds right (in combination with **translation).** • I just try to put everything together, understanding one thing leads to understanding another.
2b. Auditory monitoring	Using one's "ear" for the language (how something sounds) to make decisions.	• I use my knowledge of Portuguese, primarily sound (in combination with **transfer).** • I use the sound of word to relate to other words I know.
2c. Double-check monitoring	Checking, verifying, or correcting one's understanding across the task or during the second time through the oral text.	• I might catch it at the end and then I'd go back. • Sunny in the morning, that's not making sense ...(earlier) it sounded like a cold front, something doesn't make sense to me anymore.

3. *Evaluation*: Checking the outcomes of one's listening comprehension against an internal measure of completeness and accuracy.

Evaluation Strategies	Definitions	Examples
3a. Performance evaluation	Judging one's overall execution of the task	• How close was I? (at the end of a think-aloud report)
3b. Strategy evaluation	Judging one's strategy use.	• I don't concentrate too much to the point of translation of individual words because then you just have a whole lot of words and not how they're strung together into some kind of meaning.

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.
   Examples:

• I'm not sure but "partager" and I'm not really sure what that means.

• I think that kind of has something to do with that.

• Music, there is something, ..." des jeux", I don't know what that is.

based on (Vandergrift, 1997a)

Appendix L   Sample Phase One Dairy Analysis

Session/Topic	Q.	Answer	Category	Sub-category	Memo
1/ SECOND LANGUAGE ACQUISITION	2 WHY (DID YOU FIND THE TASK EASY OR DIFFICULTY?)	Q2:لأنه لايشمل كلمات جديدة	TK	1.b	
		ولأن موضوع المحاضرة شائع ومستخدم كثيرا	TK	1.h	
		Q2:الكلمات واضحة	TK	1.b	
		والسرعة ممتازة	TK	1.d	
		Q2:النص كان مألوف	TK	1.h	
		Q2: it was clear.	TK	1.e	
		The topic was easy	TK	1.e	
		and there was not any hard words.	TK	1.b	
		And the speed of the speaker	TK	1.d	
		Q2: سرعة الكلام في المحاضرة كانت معقولة وتستطيع استيعابها بسهولة	TK	1.d	
		Q2: because I learned most of the vocabulary and the words of these tasks	PK	3.a.	
		Q2: لأن الصوت كان واضح	TK	1.i	
		وموضوع النص سهل	TK	1.b	
		وسبق أن سمعت وقرأت فيه كثيرا	TK	1.k.	
		Q2: because it talked about something that I know	TK	1.k.	
		Q2: لأن المحاضر استخدم مصطلحات سهلة الفهم	TK	1.b	
		كما أنه كان يتحدث بروية مما أعطاني وقت كافي لكتابة الملاحظات	PK	3.g	
		Q2:لدي خلفية بسيطة عن الموضوع	TK	1.k	
		ولكنة المتحدث سهلة	TK	1.c	
		Q2: أسلوب المحاضر بسيط وواضح	TK	1.e	Challenge: consider it one or many?
		وأتى بأمثلة تساعد على الفهم	TK	1.e	
		Q2:لأن الموضوع يتداول دائما	TK	1.h	
		Q2: لأن الكلام كان جدا واضح	TK	1.d	
		والكلمات سهلة الفهم	TK	1.b	
		Q2: الإجابات أقهمها من سياق الكلام ليس الأجوبة مباشرة *	Not relevant	--	
		Q2: يوجد بعض الكلمات الصعبة وبعضها مفهومة	TK	1.b	
		Q2: الكلمات المستخدمة في النص واضحة ومفهومة	TK	1.b	
		Q2: لأنه يتعلق بنا كمترجمين نتعلم لغة ثانية	TK	1.g	Interest in topic
		Q2:because the speaker was talking slowly so we had time to understand what he is saying and	PK	3.g	
		we didn't get nervous	TK	1.j	Emotional states
		Q2:لدينا خلفية عن الموضوع	TK	1.k	
		ـ ذكر أمثلة	TK	1.e	

Appendix M   Phase 2: Analysis of Responses to Dairy Probe 1

Diary Probe 1: What are the important things you did to understand the text you just heard?															
Category	1	2A	2B	3A	3B	3C	4A	4B	4C	5A	5B	5C	6A	6B	Total
1. Selective attention	8	5	13	4	8	13	11	6	7	5	9	10	--	8	107/ 34%
2. Directed Attention	2	2	5	6	5	3	2	6	2	4	4	4	3	3	51/ 16%
3. Advance organization	2	--	4	--	3	8	1	6	10	--	5	5	--	6	50/ 16%
4. Note-taking	3	8	1	7	1	--	2	1	1	4	--	--	8	1	37/ 12%
5. Background knowledge	7	--	1	1	--	1	1	2	1	2	--	3	6	3	28/ 9%
6. Motivation	1	1	1	2	--	1	1	1	1	2	2	2	2	2	19/ 6%

7. Guessing	--	--	--	--	1	1	--	1	--	1	--	--	1	2	7/ 2%
8. Deduction	2	--	--	1	--	--	--	1	--	--	--	--	--	1	5/ 2%
9. Recall	--	--	--	--	1	1	--	--	--	1	--	--	--	--	3/ 1 %
10. Predictions	1	--	--	--	--	--	--	--	1	--	--	--	--	--	2/ 1%
11. Outline	1	--	--	1	--	--	--	--	--	--	--	--	--	--	2/ 1 %
12. Activating schema	--	--	--	--	--	--	1	1	--	--	--	--	--	--	2/ 1 %
13. Visualize	--	1	--	--	--	--	1	--	--	--	--	--	--	--	2/ 1 %
14. Translation	--	--	--	--	--	--	--	--	--	--	1	--	--	---	1/ 0.3%
Total	27	17	25	22	19	28	20	25	23	19	21	24	20	26	316

Appendix N Phase 2: Analysis of Responses to Dairy Probe 2

Diary Probe 2: What did you do to check your listening comprehension?															
Category	1	2 (A)	2 (B)	3 (A)	3 (B)	3 C	4 (A)	4 (B)	4 (C)	5 (A)	5 (B)	5 C	6 (A)	6 (B)	Total
1. Teacher/feedback	3	2	5	--	2	4	2	3	4	--	5	5	1	3	(39)/ 20%
2. Comprehension monitoring	3	5	3	5	3	3	2	1	1	4	2	1	--	2	(35)/ 18%
3. Note-taking	7	6	1	4	--	--	2	1	2	4	1	--	4	1	(33)/ 17 %
4. Directed Attention	4	1	--	2	--	2	--	2	1	1	1	1	2	2	(19)/ 10%

5. **Selective attention**	--	--	--	2	3	3	1	2	1	1	2	2	1	1	(19)/ 10%
6. **Background knowledge**	4	2	2	--	--	1	--	2	--	3	--	1	--	2	(17)/ 9 %
7. **Repetitions**	2	--	--	4	--	1	1	--	--	2	--	--	3	3	(16)/ 8 %
8. **Task**	2	2	1	1	2	--	1	1	1	--	--	--	--	--	(11)/ 6%
9. **Recall**	1	--	--	--	1	--	1	1	1	--	--	1	1	2	(9)/ 5 %
10. **Visualize**	--	--	--	1	--	--	--	--	--	1	--	--	--	--	(2)/ 1 %
Total	**26**	**18**	**12**	**19**	**11**	**14**	**10**	**13**	**11**	**16**	**11**	**11**	**12**	**16**	**(200)**

Appendix O   Phase 2: Analysis of Responses to Probe 3

Diary Probe 3: What problems did you have?															
Category	1	2 (A)	2 (B)	3 (A)	3 (B)	3 C	4 (A)	4 (B)	4 (C)	5 (A)	5 (B)	5 C	6 (A)	6 (B)	Total
1. No problems	5	2	9	4	2	6	--	1	6	3	3	1	3	2	(47)/ 18.6 %
2. Task problems	7	3	3	5	4	--	5	1	1	3	3	2	3	3	(43)/ 17 %
3. Learner Problems	4	5	1	6	1	4	3	3	3	3	1	1	3	--	(38)/ 15 %
4. Vocabulary	1	9	1	2	--	1	--	3	1	4	3	5	--	3	(33)/ 13%
5. Lack of Concentration	1	1	3	1	2	4	--	5	4	--	2	3	--	--	(26)/ 10%
6. Confusion & misunderstanding	2	--	2	1	1	1	6	2	3	--	1	3	--	3	(25)/ 10 %

7. **Missing info**	3	2	2	--	2	--	--	1	1	3	1	1	3	1	(20)/ 8 %
8. **Difficult text**	--	4	--	--	3	--	2	--	--	1	--	1	--	3	(14)/ 6 %
9. **Listening again**	--	--	--	1	--	--	--	--	--	--	--	2	1	--	(4)/ 1.5 %
10. **Note- taking**	1	1	--	--	--	--	--	--	--	--	--	--	--	--	(2)/ 0.7 %
Total	**24**	**27**	**21**	**20**	**15**	**16**	**16**	**16**	**19**	**17**	**14**	**19**	**13**	**15**	**(252)**