UNIVERSITY OF SOUTHERN QUEENSLAND

Integrating Mobile Phones in English Language Classrooms to Alleviate

Language Anxiety and Enhance Oral Interaction Skills of Malaysian

Undergraduate Learners: A Mixed Methods Study

A Dissertation submitted by

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ABSTRACT

Lack of English language proficiency is a significant factor in the unemployment of a substantial proportion of graduates from Malaysian universities. Language anxiety has been shown by research to have a debilitating effect in language classrooms, leading to further problems of acquisition, retention and production of a second language. The purpose of this study was to investigate the potential of mobile phones for alleviating language anxiety and enhancing oral interaction skills of Malaysian undergraduates.

This study first investigated the association between demographic factors and language anxiety. Intact class groups were then assigned to either Treatment or No Treatment conditions to evaluate the effects of an intervention using mobile phones. The learners in the Treatment group were introduced to the use of mobile phones for language learning purposes. They were encouraged to access the Internet using their mobile phones to download learning resources and refer to an online dictionary. They were also introduced to the audio/video capabilities of the mobile phones suitable for the Oral Interaction Course. They were taught to record and review recordings of their oral interaction practices individually or with peers. The recording and reviewing processes were important for the learners to self-analyse their performance and to improve on future performance by applying relevant oral interaction skills learned in classes. The exposure to the use of mobile phones for language learning in class was important because learners may not be familiar with such use but once they have acquired the skills their language learning could extend into a seamless part of daily life.

This study adopted a mixed methodology research design by combining both qualitative and quantitative research methods. English language anxiety of the learners was mainly contributed by communicative apprehension and fear of negative evaluation. There were few differences in language anxiety associated with demographic factors. The integration of the mobile phones was effective in alleviating the learners' English language anxiety, communicative apprehension and fear of negative evaluation. However, the learners did not have sufficiently extended exposure to the integration of mobile phones for demonstrable enhancement of oral interaction skills.

This study adds to studies of second language learning and mobile assisted language learning by demonstrating the potential for integration of mobile phones to reduce the anxiety associated with language learning. Further research is needed to investigate the potential of mobile phones to enhance learning of oral interaction skills.

CERTIFICATION OF DISSERTATION

I certify that the ideas, experimental work, results, analyses, software and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.

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ENDORSEMENT

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CHAPTER 1: INTRODUCTION

"We do not learn from experience...we learn from reflecting on experience." — *John Dewey*

1.1 Overview

One of the most significant current discussions in higher education institutions (HEIs) in Malaysia is unemployment among the local graduates. The number of unemployment among them is on the rise every year (Chew, 2013) and a comment made by Datuk Seri Mohamed Khaled Nordin, the Minister of Higher Education, is that the local graduates had failed to effectively deliver their soft skills, including communication skills ("4 punca utama graduan sukar dapat pekerjaan," 2010; Roselina, 2009). In relation to this issue, statistics on the distribution of unemployment on the basis of educational attainment of Malaysians by the end of 2012 showed that 42.5% of graduates were unemployed, which was the second highest group after the secondary school learners (50.1%) (Department of Statistics, 2013).

In Malaysia, employability of graduates has been linked to the belief that graduates have attained a reasonable English language proficiency to enable them to communicate in the English language. At a basic level, the Malaysian government defines employability as the marketability of local university graduate in the work force (Sirat, Chan, Shuib, Abdul Rahman, Ahmad Kamil & Nachatar Singh, 2012). The JobStreet.com English Language Assessment test, which provides a standardised yardstick to measure English competency of Malaysian graduates, substantiated that the graduates lack English communication skills ("Malaysians' English rank lower than neighbours," 2011). Furthermore, a poll administered to human resource managers in November 2011 found that 50% of them claimed that the local graduates demonstrated "poor communication skills and notably lack command of the English language", making the managers reluctant to recruit them (Lim, 2013, p. 25). The decision of the managers supports a report indicating that the two factors that make local graduates still jobless within the first six months after graduation are lack of language proficiency, particularly in English, and insufficient knowledge and competency in the jobs they applied for (The Star, 27.7.2013). These issues affirm the preference of future employers to recruit local graduates who are competent in the English language as an added advantage besides academic excellence. The reports from various media on the increased number of local graduates being unemployed is a serious issue for the country. In order for Malaysia to achieve the status of developed country, it requires human capital development to be "better equipped to face new global challenges and master technological discoveries" (Talif, Chan, Abdullah, Wong, Rohimi, & Md Rashid, 2010, p. 1). This is because only

countries which possess human capital with high skill levels are able to drive forward to go global.

Language anxiety is an increasingly significant issue in second language (L2) learning contexts because it is found to be recurring at every stage of language learning (Darmi & Albion, 2012) – the input stage, the processing stage and the output stage (MacIntyre & Gardner, 1994). L2 learners encounter the problems of acquisition, retention and production of the target language (MacIntyre & Gardner, 1991b) that consequently create a mental block affecting their ability to perform successfully in L2 classrooms (Horwitz, Horwitz, & Cope, 1986). Language anxiety is an important affective domain of learners which plays a key role in determining the success or failure of language learning (Oxford, 1990) that is believed to have influenced the language learning of Malaysian graduates.

Language anxiety includes emotions of self-esteem, empathy, anxiety, attitude and motivation (Shumin, 2002, as cited in Richards & Renandya, 2011). For L2 learners, learning an L2 is a complex task and prone to human anxiety (Brown, 2007) that impacts the extent to which language learners participate during the course of language learning. In other words, if learners feel positive throughout the language learning often they will participate actively in the classroom and be willing to engage in the learning activities. Consequently, this leads to achievement in language learning as well as successful language acquisition for the individual learners. On the other hand, negative attitudes towards learning the target language are associated with uneasiness, self-doubt, frustration and apprehension affecting cognition that will lead to poor performance in language learning, and this in turn affects the psychological state of the learners. Nevertheless, research has consistently shown that language anxiety is a consistent phenomenon in L2 classrooms and it is an obstacle that hinders learners from learning or acquiring a foreign language (Horwitz et al., 1986). This study looks at oral interaction in informal conversation or during participation in a structured environment. Oral interaction involves a unique combination of rhetorical skills requiring understanding of what to say and how to say it. For non-native speakers of the English language, oral interaction in the target language causes anxiety for them who need to know what to say and how to converse.

In recent years, there has been an increasing interest in mobile learning in the areas of education in general, and in the field of L2 learning, specifically (Reinders & Cho, 2012). There has been a proliferation of mobile technology providing a myriad of opportunities to support mobile learning as an extension to "learning that occurs in or outside of a classroom or formal education setting, is not fixed to a particular time or place, and is supported by the use of a mobile device" (UNESCO, 2012, p. 10). It is predicted that personal and portable mobile technologies can have a great impact on learning when

learning can take place outside of the classroom and in the learner's environment (Naismith, Lonsdale, Vavoula, & Sharples, 2004). The survey report on hand phone users in Malaysia in 2012 revealed that the largest group of users were in the age group 20-24 (17.3%) followed by age groups 25-29 (15.8%) and 30-34 (13.8%), respectively (Malaysian Communications and Multimedia Commission, 2012a). The statistics reflect the widely accepted and increased ownership of mobile phones among Malaysians in the 21st century. Undergraduate learners in HEIs in Malaysia are mostly in the age range of 20-30; therefore, mobile learning via mobile phones has become a central issue for educators to investigate its implementation in the L2 learning context.

Up to this point, no research has been found that integrated mobile phones in language learning to alleviate language anxiety in L2 learning contexts, consequently helping learners improve their oral interaction skills. This study was intended to investigate the effectiveness of mobile phones as a learning tool to solve both problems of learners – first, to alleviate language anxiety levels and second, to enhance oral interaction skills, specifically for undergraduate learners learning English as a L2 at HEIs.

The findings from this study will contribute to research on how to reduce language anxiety of L2 learners, consequently to enhance their oral interaction skills in mobile language learning environments. This study used multiple data sources including surveys, journal writing, interviews, course assessments and observation notes.

1.2 Context of study

The context of this study is Malaysia, which is situated in South East Asia and is made up of West Malaysia and East Malaysia. In 2010, the statistics of Malaysian citizens were Bumiputera (67.4%), Chinese (24.6%), Indians (7.3%) and others (0.7%) (Department of Statistics Malaysia, 2010). The Bumiputera ethnic groups mainly include the Malays (63.1%) and Indigenous groups (4.3%). Not only do these ethnic groups form the structure of the society, but the multiethnic composition of learners is also apparent in classrooms at higher education institutions in Malaysia.

1.2.1 The language situation in Malaysia

Since the eighteenth century, Malaya (the former name for Malaysia) was under the British administration till it achieved independence in 1957 (Fei, Siong, Kim, & Azizah, 2010). Throughout the nation, English was used as the official language of administration and communication between the

government sectors. Under their administration, the British not only established English medium primary and secondary schools but also schools to cater for each of the three ethnic groups, the Malays, Chinese and Indians. The medium of instruction used at these schools was not English language but in respect to the ethnic groups.

Post-independence acknowledged the implementation of the National Language and National Education Policies for the primary and secondary level of education (Saadiyah, 2009). One of the acts proposed Bahasa Malaysia as the national language whilst English language was formally accorded the status of a L2 (Saadiyah, 2009; Thirusanku & Melor, 2012).

1.2.2 English language in Malaysian education system

Since independence, the importance of English language has continuously evolved in the Malaysian education system. For example, the Education Act 1961 provided the legal basis for Bahasa Malaysia to be a compulsory subject in primary and secondary schools. Therefore, schools that used English language as the medium of instruction had to gradually adopt the national language. However, in 1970, English language was phased out as the medium of instruction.

Though polices related to English language in the Malaysian education system have been revised a few times, they still uphold the importance of the language. For example, English language is a compulsory school subject from primary levels, at the age of seven, to secondary levels, at the age of seventeen. Therefore, upon completing their education at schools, Malaysian learners would have formally learnt the language in schools for a minimum of nine years. To support the importance of English language, the Malaysian Ministry of Education is currently providing training to 65,000 English language teachers on top of 5,000 who were trained last year in order for them to improve and empower their English language teaching skills (Dass, 2014).

The New Primary Schools Curriculum or Kurikulum Baru Sekolah Rendah was launched in 1983 encompassing the four language skills – listening, speaking, reading and writing – reflecting the needs of daily life of Malaysian society. In addition, the Integrated Secondary Schools Curriculum or Kurikulum Bersepadu Sekolah Menengah was launched in 1989 as an extension to give opportunities to learners to engage in wider reading for enjoyment and self-development, as well as to develop an understanding of other societies, cultures, values and traditions to contribute to emotional and spiritual growth. The secondary school curriculum advocated the Communicative language teaching syllabus integrating all four language skills to achieve a total development of all skills. To create enjoyment, and for self-

development, a literature component is introduced in the secondary school syllabus.

Effective January 2003, both Science and Mathematics were taught in the English language aimed at enabling learners to be hand in hand with the developments in science and technology and to access the subjects' information in the English language (Pandian & Ramiah, 2004). In the light of these concerns, learners had to learn the contents of both subjects while struggling with their English language proficiency and on the other hand, the subjects teachers had to struggle with delivering the content in English language (Pandian & Ramiah, 2004). In 2009, the Malaysian government decided to revert the medium of instruction for both subjects to Bahasa Malaysia ("Students coping well with Maths, Science in BM," 2013).

The recent plan of education development of Malaysia for 2012-2015 (Ministry of Education, 2012) strongly emphasises literacy in English language for Year 1 to Year 3 learners in primary school, and learners in secondary school will be grouped on the basis of proficiency in order for teachers to cater to homogenous groups' needs. The use of information and communication technology (ICT) will also be explored for individual needs and online learning mode for teachers and learners. This education plan asserts the continuing importance of the English language in the Malaysian education system alongside the national language.

In summary, English language is still retained as an important L2 in the Malaysian education system in spite of the language policy shifts. Various background factors of the local learners for instance, ethnic groups, first languages, locations of schools and family support, differentiate the attitudes of the learners towards the English language. The learners who do not get opportunity and support to use the target language outside the classroom are usually anxious in the language learning classroom learning and it worsens when required to use the target language. Consequently, this situation leads to the learners' performance in assessments.

1.2.3 English language national level assessments

The English language is an important subject in schools and the learners are assessed from primary to secondary schools. They need to achieve a pass in the examinations administered at the secondary school level and pre-university programs because their proficiency is usually measured through their performances in the examination. The difference between the national level assessments and school assessments is that the language components and language skills in school assessments usually focus on vocabulary, grammar, reading and writing only. Listening and speaking are rarely administered at the school level because assessment for speaking, for instance, requires

examination of assessment methods either live or recorded, rating scales and training of raters (Ginther, 2013).

Malaysian Examinations Syndicate under the Ministry of Education, Malaysia, administers the national examinations. The last national examination in secondary school is administered before the end of the upper secondary level known as Malaysian Certificate of Education or Sijil Pelajaran Malaysia (SPM), assessing what the learners have learnt in Form Four and Form Five. The results determine the eligibility of the learners to pursue to pre-university programs. The minimum requirement to be eligible to continue to HEIs in Malaysia is obtaining a Pass in SPM in six core subjects namely, Bahasa Malaysia, English, History, Mathematics, Science and Islamic Studies or Moral Education (refer to Figure 1-1). Even though the importance of the English language in the Malaysian education system is greatly emphasised, it is not resonated in the SPM since learners need to obtain only a Pass in the subject.

NEW GRADING SYSTEM FOR SPM 2009

New Grade		Old Grade	
A+	(Super distinction)		Distinction
A	(High distinction)	1A	Distinction
A-	(Distinction)	2A	
B+	(Super credit)	3B	
B	(High credit)	4B	Credit
C+	(Upper credit)	5C	Credit
C	(Credit)	6C	
D	(Upper pass)	7D	Pass
E	(Pass)	8E	Pass
G	(Fail)	9G	Fail

* Source: Education Ministry   GRAPHICS © 2010

Figure 1-1. Grading system of Sijil Pelajaran Malaysia (SPM)
Note: Adapted from Ministry of Education, 2010,
http://malaysiafactbook.com/Sijil_Pelajaran_Malaysia

The other national examination to measure the English language proficiency of Malaysian learners is the Malaysian University English Test (MUET), which is recognised in Malaysia and Singapore. Learners who continue to pre-university and similar programs must sit the test as an entry requirement to all HEIs in both countries. The learners' competency in the English language is measured on four language skills, namely reading (45%), writing (25%), listening (15%) and speaking (15%). The average scores for all the skills are

then obtained as an overall band score. As presented in Table 1-1, MUET is a 6-band scale on the basis of aggregated band score.

MUET is a criterion-referenced test; therefore, each band reflects the individual learner's English language proficiency level (see Table 1-1), which consequently guides the learners on the English language courses they need to enrol for during their undergraduate programme. The lowest score for MUET is Band 1 and the highest score is Band 6. Since there are no pass or fail grades for MUET, Malaysian learners need to achieve only a band score to be eligible to continue to HEIs in Malaysia.

Table 1-1 Band Descriptors for Malaysian University English Test (MUET)

Band	Aggregated score	
6	260 – 300	Very good user
		Very good command of the language. Highly expressive, fluent, accurate and appropriate, hardly any inaccuracies. Very high level of understanding of the language and contexts. Functions extremely well in the language.
5	220 – 259	Good user
		Good command of the language. Expressive, fluent, accurate and appropriate language but with minor inaccuracies. Good level of understanding of the language and contexts. Functions well in the language.
4	180 – 219	Competent user
		Satisfactory command of the language. Satisfactory expressive and fluent, appropriate language but with occasional inaccuracies. Satisfactory level of understanding of language and contexts. Functions satisfactorily in the language.
3	140 - 179	Modest user
		Modest command of the language. Modestly expressive and fluent, appropriate language but with noticeable inaccuracies. Modest understanding of language and contexts. Able to function modestly in the language.
2	100 – 139	Limited user
		Limited command of the language. Lack of expressiveness, fluency and appropriateness. Inaccurate use of language resulting in breakdown in communication. Limited understanding of language and contexts. Limited ability to functions in the language.
1	Below 100	Extremely limited user
		Poor command of the language. Unable to use language to express ideas. Inaccurate use of the language resulting in frequent breakdowns in communication. Little or poor understanding of language and contexts. Hardly able to function in the language.

Note. Reprinted from Malaysian Examinations Council, 2006

1.3 Research background

This study investigated the language anxiety level of Malaysian undergraduates learning English in an oral interaction course. Specifically, the study investigated factors of language anxiety that have impact on learners' oral interaction. The research study applied a treatment during the language learning process with the intervention of mobile phones aiming to alleviate

language anxiety in order for the learners to improve their oral interaction skills.

First, the researcher determined the English language course as the focus of the study. The oral interaction course was one of the university courses offered to the first year undergraduate learners of a public HEI in Malaysia. For the experimental research design, the researcher adopted the intact groups design that is using the preexisting groups instead of randomly selecting the subjects from the population they represent. The groups were then randomly assigned to the sample groups. Selecting the preexisting groups for the experiment means "for some reason the groups cannot be randomly selected and/or randomly assigned" (Nunan & Bailey, 2009, p. 46). One of the intact groups was assigned the treatment whilst another did not get the treatment. The former group was labeled as the Treatment group and the latter as the No Treatment group. The purpose of assigning these intact groups was to compare changes to the Treatment group as a result of the intervention with the No Treatment group. Appropriateness should be the guiding principle to selecting the research method (Nunan & Bailey, 2009).

"As researchers, we must be eclectic and choose data collection and analysis procedures that are appropriate for answering the research questions" (Nunan & Bailey, 2009, p. 5) as proposed in Section 1.5. The ethical procedures were observed and are further elaborated in Chapter 3.

In 1986, Horwitz et al. proposed a situation-specific anxiety construct, which they named Foreign language anxiety, as responsible for negative emotional reactions of learners to language learning (Horwitz, 2001). Further, they explained that language anxiety stems from the natural inaccuracy associated with L2 communicative abilities (Horwitz, 2001). In order to measure foreign language anxiety, Horwitz et al. (1986) designed an instrument known as the Foreign Language Classroom Anxiety Scale (FLCAS). Since then, the instrument has been widely adapted or adopted for studies related to foreign language anxiety reaction to language learning (Horwitz, 2001). Results of the studies have found a consistent moderate negative correlation between FLCAS and measures of L2 achievement (Horwitz, 2001).

Integrating mobile learning in language learning contexts reflects different theories of learning since the engagement of the technology is planned for various learning objectives. Integrating different mobile learning applications into the learning process reflects different learning theories including behaviourist, constructivist, situated, collaborative, informal and lifelong as well as learning and teaching support (Naismith et al., 2004). Integrating mobile phones in this study was to examine their effectiveness to alleviate the learners' language anxiety and to enhance the learners' in oral interaction skills.

1.4 Research problem

Language teachers and researchers conduct empirical research "to determine what they can and should do to facilitate language learning" (Nunan & Bailey, 2009, p. 5). Teachers attempt to understand the learning process that learners go through in learning English language by conducting classroom investigations to find answers to questions of pedagogy (Nunan & Bailey, 2009). Malaysian undergraduate learners are heterogeneous in terms of age, background factors, learning styles and learning strategies. For instance, adult learners tend to experience greater anxiety than young learners since the former are more worried with the evaluation from their language teachers and peers; and learners who reside in urban areas have more exposure to the use of English language than learners who live in rural areas. These are the factors that are believed to cause learning the English language to be a complex process for both learners, as the knowledge receivers, and the language teachers, as the knowledge providers.

Language teachers are continuously attempting various approaches in their teaching to address the different characteristics of their learners when teaching English language. Similarly, learners attempt to construct understanding within a social and cultural context (Greenfield, 2009), construct new knowledge on the basis of their current linguistic knowledge (Bransford, Brown, & Cocking, 2000; Vygotsky, 1978), and develop their meta-cognitive skills in order to regulate their own learning (Bruner, 1985; Rogoff, 2003; Vygotsky, 1978). Some learners are able to overcome the difficulties and develop an ability to use the L2 quite effectively, though not usually sounding like a native speaker (Yule, 2014). The effective learning of an L2 requires a combination of factors (Yule, 2014). Similarly, Spolsky (1989) argued that success or failure of the learners to become proficient in the English language encompasses a number of determinants including the social context, attitudes and motivation of learners, personal characteristics of learners and learning opportunities.

In the context of this study, Malaysian learners who were selected from a local HEI had similar level of English language proficiency. It is compulsory for all undergraduate learners to take a minimum of one English language course. Learners who enrol for undergraduate programmes at the university are assigned to English language courses depending on the results they achieved in MUET. Learners who achieved band 1 and 2 would have to take and pass one English language course, namely English for Academic Purposes (EAP) before enrolling in two other university English language courses, namely Oral Interaction Skills and General Writing Skills. Learners who achieved band 3 and 4 are required to take both of these university English language courses only. Learners who achieved band 5 and 6 are exempted from taking both of these university English language courses but need to take at least one

English language course from a range of elective English language courses offered.

The groups of learners were purposively selected from two different disciplines – Science and Engineering. They were enrolled in an English oral interaction course designed for learners who achieved band 3 (modest user) or band 4 (competent user) in MUET. This study aimed at identifying factors that may impact English language oral interaction competency of the Malaysian undergraduate. The second aim of the study was to investigate the effectiveness of mobile technologies, in particular mobile phones, for English language learning in formal learning contexts, an area in which Kukulska-Hulme and Shield (2008) remarked that very few studies had been undertaken. Moreover, the drive to conduct this study was the scarce research on the use of mobile phones in language learning contexts (Saran, Seferoglu, & Cagiltay, 2012) in general and the effectiveness and impact of mobile learning on oral interaction, specifically, which have not been sufficiently documented (Yang, Gamble, & Tang, 2012).

1.5 Research questions

The research questions that guide this study are:

1. To what extent are demographic factors associated with language anxiety of Malaysian undergraduate learners?

2. How does the integration of mobile phones in the oral interaction course affect the language anxiety of Malaysian undergraduate learners?

3. To what extent has the integration of mobile phones enhanced oral interaction skills of Malaysian undergraduate learners?

1.6 Research aims

This study is justified from the theoretical and practical perspectives for both language anxiety and mobile learning. From the theoretical perspective, it responds to an identified opportunity to investigate design principles for mobile learning, specifically for mobile-assisted language learning (MALL) using mobile phones. From the practical perspective of the language instructor and learners, the study is justified because language learning can extend beyond the classroom and mobile learning offers new learning experiences

and flexibility in learning - learning anywhere and learning anytime – with increased opportunities for decisions to be made by the learners.

There has been gradual movement toward integrating mobile technologies into teaching and learning but educators need time to understand how the technologies can be effectively used to support various kinds of learning (Kukulska-Hulme & Shield, 2008). Nevertheless, they are interested to exploit the potential of the technologies learners bring with them and find ways to put the technologies into good use for the benefit of learning practice (Sharples, 2003). Furthermore, with the widespread use of mobile technologies, language teachers have become attracted as the technologies offer means of providing learning opportunities that learners can take advantage (Stockwell, 2013a). Mobile learning is not necessarily linked with the availability of the Internet and past studies on the area of mobile learning have left out various domains in the mobile learning environment. Mobile learning is an increasingly important aspect of L2 learning, and mobile learning initiatives in Europe have demonstrated blended learning pedagogy instead of solely using mobile devices (UNESCO, 2012). It was further emphasised that mobile devices such as smart phones should be seen as complements rather than replacements to enhance learning (UNESCO, 2012). The present study is a quest for new approaches using audio-video recording features available on mobile phones, which have been found to have the least frequent exploration in previous studies.

Most studies on second or foreign language anxiety have been carried out on undergraduate second or foreign language learners (Akbari & Sadeghi, 2013; Atasheneh & Izadi, 2012; Awan, Azher, Anwar, & Naz, 2010; Khattak, Jamshed, Ahmad, & Baig, 2011). In the Malaysian education context, there is one published study of language anxiety on gifted learners from secondary schools (Kamarulzaman, Ibrahim, Md Yunus, & Mohd Ishak, 2013), one study on a group of international learners studying English language at a private higher education institution (Rajanthran, Prakash, & Ainawati, 2013) and finally a study on final year learners at a public university (Chan, Abdullah, & Yusof, 2012). Therefore, the present study investigated the extent of the relationships between demographic characteristics of first year undergraduate learners at a Malaysian HEI and their language anxiety level that consequently impedes their ability to perform in the oral interaction skills.

1.7 Significance of study

The study aimed to investigate the factors that contribute to language anxiety of L2 learners of English in Malaysia. Language anxiety is a barrier to language learners that makes them less active during the process of language

learning. In order to be competent in the English language, learners need to use the language as much as they can to create a sense of confidence in using the target language. For this reason, this study attempted to make the learning more learner-centred by introducing to the learners the use of mobile phones to suit their different needs.

This study provides some practical insights on the use of mobile phones in an English oral interaction course in the Malaysian educational context. For example, the learners were introduced to the use of audio recording device on the mobile phones to record their voices and review the recording as a means to learn and revise their performance and consequently to improve their performance. The aim of the repeated practice is for learners to harness their oral interaction skills and indirectly improve their confidence level. At the same time, integrating the mobile phones into the L2 learning is widening opportunity to utilise the language beyond the classroom since L2 learners of English language in non-English speaking countries often have limited opportunities for listening and speaking in the target language in the classroom and almost no opportunity outside the classroom. At the same time, the study is extending the use of the device mobile generation learners possess. Furthermore, empirical research on the use of mobile devices in regards to listening and speaking skills are being "abandoned due to technical and scheduling difficulties" (Kukulska-Hulme & Shield, 2008, p. 281).

Mobile language learning aims to add to the existing learning approach since mobile phones are affordable; they are increasingly and frequently used by Malaysian undergraduate learners. Therefore, language teachers should take this opportunity to explore the built-in features on mobile phones relevant to language learning as to enhance learning experience by enabling communications, learning on the move as well as augmenting the concept of learning anytime and anywhere. At the same time, mobile language learning is significant for learners who should take advantage of the technology they have in hand to efficiently use it for language learning.

1.8 Definitions of terms

Throughout this thesis, the term 'language anxiety' will be used consistently to refer to the worry and negative emotional reaction experienced as the effect of learning or using a second language (L2) (MacIntyre, 2007). Researchers on L2 acquisition agree that language anxiety is a situation-specific anxiety that would inhibit the learning and/or production of an L2 (Horwitz, 2010).

In this thesis, the term 'mobile learning' refers to any types of learning done by learners using mobile technologies and happens at non-predetermined location, or learning that happens when learners incorporate any types of

technology into their learning (O'Malley, Vavoula, Glew, Taylor, Sharples, & Lefrere, 2003). In addition, mobile learning is the delivery of learning content to mobile devices (Ally, 2009) enabling learning anywhere and anytime.

The term 'mobile-assisted language learning' is associated with language learning incorporating the use of mobile technologies (Kukulska-Hulme, 2013a). In regards to research into mobile-assisted language learning, the three primary technologies have been MP3 players, PDAs and mobile phones (Stockwell, 2013a).

The term 'mobile devices' includes a range of standard mobile phones to tablet devices, for example personal digital assistants, MP3 players, flash drives, electronic-book readers and smart phones (UNESCO, 2012). For example, with Internet-enabled facility, learners can access the Internet on mobile phones anywhere and anytime (Chen, 2010).

Throughout the thesis, the term 'oral interaction' refers to the processes of listening and speaking between two or among a few interlocutors. Both processes happen simultaneously. In the case of turn-taking, the listener, in general, tends to forecast the remainder of the speaker's message to prepare a response. It is believed that learning to interact involves more than listening to receive and preparing to produce utterances (Council of Europe, 2004).

The research design adopted for the study was a 'mixed methods design' which refers to "an approach to inquiry by collecting both quantitative and qualitative data, integrating the two forms of data, and using distinct designs that may involve philosophical assumptions and theoretical frameworks" (Creswell, 2014, p. 4).

The term 'soft skills' used in the thesis denotes generic skills including critical thinking and problem solving skills, communication skills, lifelong learning and information literacy, team-working skills, professional ethics and morality, entrepreneurship skills, and leadership skills. They are critical elements in the globalised working world, particularly in the light of rapid technology advancement (Ministry of Higher Education, 2006)

1.9 Structure of thesis

The thesis is presented in seven chapters. Chapter 1 has introduced the background to the study and the research questions, defined the key terms, and described the organisation of the thesis. Chapter 2 reviews key issues in published research on the learning of oral interaction skills, language anxiety

and mobile learning via mobile phones. The chapter includes some major findings from empirical research studies. In Chapter 3, the research design of the study is further elaborated with detailed information about the research context, research participants, data collection instruments and procedures, as well as data analysis.

Chapter 4 follows with the presentation of results and findings derived from the quantitative data collection. Next, Chapter 5 presents the thematic results of the qualitative data collected from focus group interviews, observation notes of the researcher and the journal writing of the learners. Chapter 6 provides the discussion of findings by relating them to the research questions with support from published research examined in the literature review chapter. Finally, Chapter 7 concludes the study and highlights limitations of the study as well as provides suggestions for future research.

CHAPTER 2: LITERATURE REVIEW

If you talk to a man in a language he understands, that goes to his head.
If you talk to him in his own language, that goes to his heart. –Nelson
Mandela

As mentioned in Chapter 1, the aim of this study was to explore the intervention of mobile phones in English language learning classroom, specifically with learners taking an oral interaction skills course. The purpose of the intervention was to assess the possible effects on language anxiety and performance in oral interaction skills of Malaysian undergraduate learners. This chapter begins by reviewing past studies in relation to the learning of oral interaction skills in second language (L2) learning contexts (Section 2.1). The chapter then reviews past studies on language anxiety, in general and specifically on speaking skills of Malaysian L2 learners (Section 2.2). Finally, the chapter reviews past studies on the use of mobile phones for language learning purposes (Section 2.3).

2.1 Learning oral interaction skills

The term 'non-native speakers of English' refers to both second and foreign language learners. Throughout this study the term 'second language (L2) learners' includes foreign language learners. L2 learners find interacting in English language as challenging because the language is not as conveniently used as their first language. At the same time, the L2 learners worry of their incapability to say perfect sentences and getting their messages across. No doubt, the L2 learners are more fluent in their first language; thus, giving them more confidence to interact in the first language. However, if L2 learners continue being reluctant to interact in the target language, the situation will affect their future as they do not see the current needs or future benefits of being proficient in the English language.

Oral interaction refers to spoken interaction, and the skills involve reciprocal activities of listening and speaking that are considered to be difficult for non-native learners (H. H.-J. Chen, 2011) since learners need to understand what they hear before giving appropriate responses. Beginning- and intermediate-level learners find both skills difficult that require them to focus attention on many aspects including developing and mapping the ideas onto appropriate structures, keeping conversational turns ongoing and worrying about their interlocutors' response (Kern, 1995). In addition, second and foreign language learners find it challenging to interact in English language as they encounter various linguistic problems that handicap and hamper their attempts to interact. The common circumstance in non-native English speaking countries

is lack of authentic target language environments for L2 learners to develop their interaction skills creating an imbalance in classroom participation but greater emphasis on testing..

Several studies (Barlow, Wisessuwan, & Tubsree, 2013; Boonkit, 2010; H. H.-J. Chen, 2011; Y. Zhang, 2009) have revealed that L2 learners do not take the opportunity to communicate in English language after classroom learning. This emanates from their personal attitude and feelings including avoiding making mistakes when interacting in the target language. In addition, a number of studies (Kumaran, 2010; Samat, 2010; Yang, Li, & Hua, 2012) have found limited learners' participation in class due to their negative experiences and perceptions toward their teachers, the language content as well as learning and teaching process. It is believed that the feelings towards the L2 are associated with the learners' experience of anxiety and realising they have low proficiency in the English language (Liu & Jackson, 2008). On the contrary, learners who have greater proficiency in the English language are more inclined to participate (Liu & Jackson, 2009).

L2 learners of English language have increasing concern towards their ability to interact in the target language; at the same time it is imperative that teachers are prepared with alternative pedagogical approaches to gauge learners' active participation in the language classroom. L2 classroom is defined as "a social context to which learners bring themselves and their past experiences in which they establish certain relationships and attempt to participate and engage in tasks in ways that best fit their social needs" (Jeon-Ellis, Debski, & Wiggleswort, 2005, p. 123). L2 classrooms should be the best environment for the learners to practise interacting in the target language whilst developing their proficiency and confidence in using the language. Furthermore, effective oral interaction demands L2 learners to develop their ability to use English language appropriately in social interactions and beyond the classroom walls. Interaction involves verbal communication as well as non-linguistic elements such as body language and facial expression. Competency in oral interaction skills demonstrates the extent of knowledge or the amount of acquired grammar and vocabulary, all of which leads to construction of sentences which learners need to produce and adapt to the circumstances (Khamkhien, 2011).

In non-native speaking countries, English language is learnt as a subject focussing on assessments instead for communication purposes. The English teachers teach the subject as prescribed by the school syllabus. This has contributed to the problem of having less active learners who may or may not be able to give responses in the classroom due to their language handicaps. Similarly, interacting in English language requires L2 learners to learn the microskills including pronunciation, stress and intonation, as well as formal and informal expression (Y. Zhang, 2009). In addition, they also learn the four

language skills formally which are reading, listening, writing and speaking. Developing speaking skills enables L2 learners to enhance their interaction skills. In the English language classroom, the teachers prepare dialogues to get the L2 learners to interact in the target language as a means to encourage the learners to negotiate meaning and to apply their knowledge of the language learnt. Through repeated authentic English language usage, it is hoped that the L2 learners of English would be able to harness their oral interaction skills.

The next section reviews the issue that L2 learners encounter in learning English language. It then elaborates past studies using various approaches attempted to enhance oral interaction skills in L2 learning contexts. The studies were either technology-driven or initiated teaching approaches developed by the language teachers and the results highlight some salient issues.

2.1.1 Issues with oral interaction skills

2.1.1.1 The learners

From observation, L2 learners of English, including Malaysian learners, who are not proficient in the target language usually do not use the language to interact; and in return the language teachers normally do not get their participation either. One of the techniques that is believed to encourage learners to interact in the English language is giving them an opportunity to practise communicating in different social contexts and in different social roles (Larsen-Freeman, 2000). Brown (2007) explains that "role-play minimally involves (a) giving a role to one or more members of a group and (b) assigning an objective or purpose that participants must accomplish" (p. 183). Furthermore, role-play can be assigned with another person, in pairs or in groups, and each person involved is designated a role to accomplish an objective (H. D. Brown, 2007).

Role-play was found to be challenging for a few learners from a secondary school in Malaysia while the majority found it easy (Kumaran, 2010). The English language teacher prepared a flow-chart to assist her L2 learners. Those who had the best language competence agreed that the flow-chart had guided them to speak by giving ideas on what to say in an attempt to use the language. They felt that they were given opportunities and encouragement to speak in the English language. As a result, the learners enjoyed, felt comfortable and had greater confidence working with peers without worrying about making mistakes. On the other hand, other learners who were incompetent in the language structures experienced problems in performing the activity.

Thai learners have been reported to have barriers in developing speaking skills and communicating in the English language (Boonkit, 2010). English is a foreign language in Thailand and Thai undergraduate learners would have learnt English for about eight to ten years prior to the undergraduate study (Boonkit, 2010). A task-based pedagogical approach (Nunan, 2006) was the basis of the course design for the speaking activities and the learners agreed that they needed to be well-prepared prior to the activities which they realised was an effective strategy to minimize anxiety and maximize their speaking confidence. At the same time, they realised the need for them to increase their confidence levels in speaking in order to improve speaking performance. Nevertheless, the analysis from the recordings on one of the speaking tasks revealed the ability of the Thai learners to use a broad range of vocabulary though they still demonstrated weaknesses in the pronunciation and grammatical structures of the sentences.

Another study on Thai civil engineering learners concurred on their incompetency in grammar; however, they learnt effectively using pictures as the stimuli to represent vocabulary (Jarupan, 2013). The learners were shown the pictures of safety equipment and signs used in the construction workplace. They portrayed an acceptable level of communication by applying their schema knowledge. This study concluded that teaching English for specific purposes was good enough to develop communicative strategies for non-native speakers. The Thai learners were found to have made frequent mistakes on pronunciation that is believed to have caused from working between different language systems. Therefore, the study suggested the teaching of English pronunciation system as to provide the basic knowledge for pronouncing correct vocabulary and pointing out the differences of pronunciation in Thai and English language systems in order to help develop the Thai learners' oral competency though it meant the need of extra time to reach the goal.

Despite of the difficulties of learning English language encountered by Thai learners, they were reported to have high extrinsic motivation in studying English language for the purpose of securing a good job after graduation (Khamkhien, 2011). The learners asserted that if English language was not important for their future they would not learn the language. However, they expressed their worry about making mistakes and feeling embarrassed when speaking in the target language. In general, the Thai learners still revealed positive attitudes towards the language, teachers and English instructions.

Chinese learners studying English language as an L2 in Hong Kong experienced speaking-in-class anxiety (Mak, 2011) due to a number of factors. The first factor identified was negative attitudes towards the language class that consequently affected oral performance and grades when they were required to speak and contribute in role-plays and discussions. The second

factor was wait-time implying to the long wait-time they required before giving responses. Wait-time was culturally significant for them in the L2 classroom as they believed it was to retain 'group unity' and 'face' as they felt threatened with their inability or reluctance to speak. The third factor was speaking in front of the class without preparation since speaking in the target language to an audience required linguistic, cognitive and psychological demands on the learners. Chinese learners did not favour of being corrected by peers or teachers when speaking; nor did they favour of using their mistakes to elaborate teaching points as this would be anxiety-provoking to them. However, the Chinese learners supported the use of their first language in the English language class to reduce speaking anxiety so as to develop their confidence as well as encouraging speaking. Other factors affecting their speaking-in-class anxiety were negative self-evaluation, fear of negative evaluation, feeling discomfort when speaking with native speakers and fear of failing the class or consequences of personal failure.

Bangladesh learners studying English as an L2 were found to be incompetent in oral communication skills in the English language specifically on the stress in syllabi and vocabulary knowledge, use of different word classes and grammar structures (Pathan, 2013). A study was carried out with learners from five higher education institutes (HEIs) learning oral communication skills using audio texts for listening skills and oral presentation for speaking skills (Pathan, 2013). First, the researcher identified from the literature a list of given factors perceived to have impact on the listening activity. Next, the learners listened to an audio text prior to marking the factors on a post-listening activity sheet. Then, the learners were assigned a topic each to present an impromptu five minutes presentation. During the oral presentation, the researcher marked the factors that he thought were the problems experienced by each learner.

Learning strategies are to help learners understand, learn and remember better and for them to be more effective and independent learners of the target language (Labarca & Khanji, 1986; O'Mallay & Chamot, 1990). Similarly, communication strategies are to assist L2 learners to overcome their difficulties and generate the target language to achieve communication goals in interaction (Nakatani, 2010). A group of Japanese college learners taking up an English as a foreign language course were trained on the communication strategies – review, presentation, rehearsal, performance and evaluation in order to identify the use of various communication strategies for classroom interaction (Nakatani, 2010). The three factors that significantly related to the Japanese learners were the response for maintenance strategies indicating that the learners who appropriately used active response to maintain the interaction attempted to reduce communication breakdowns achieved high scores; the production rate in term of number of words, referring to the ability to produce longer utterances allowing the learners to improve in the longer turns and the

learners scored high; and signals for negotiation consisting of confirmation checks, comprehension check, and clarification requests during the interaction giving the learners opportunity to develop their oral communication ability. In addition, the study identified different communication strategies used by high-proficiency and low-proficiency Japanese learners. For example, high-proficiency learners used response for maintenance strategies, time-gaining strategies, signals for negotiation, modifying utterances to improve mutual understanding, and social affective strategies. They needed these strategies to control affective factors they were experiencing. On the other hand, the low-proficiency learners experienced affective and cognitive difficulties. Affective difficulties were due to the lack of experience in using English in authentic contexts or conversation test contexts; and cognitive difficulties were the result of insufficient linguistic, sociolinguistic and strategic knowledge. Furthermore, the Japanese learners were found to be under pressure to respond in English language when they were not able to identify vocabulary and grammar to produce appropriate expressions as well as to understand any input. The study suggested for low-proficiency learners to learn in a small group programme as to provide them time to learn the target language gradually.

In summary, the studies in Asian contexts agree on the common issues encountered by L2 learners when learning English language. The learners still have problems to understand the language structures, make mistakes in using the words or grammar, tenses and pronunciation as well as external problems such as fear if teachers and friends laugh at them when they make mistakes. In English language learning classrooms, these problems indicate the less active participation from learners. The following section looks at published studies that attempted various approaches with the objective to enhance oral interaction skills.

2.1.1.2 Communicative-based approaches

Language teachers have attempted various teaching approaches in order to assist the problems of oral interaction skills encountered by L2 learners of English language. One of them is through presentation skills that have proven to give confidence in learners (Nadeem & Rahman, 2013). However, L2 learners of English language studying in English speaking countries were found to be reluctant to participate though oral participation which is believed to be caused by the way they were moulded in an inactive learning process in their home country (Gill, 2013). As a result, the learners had indirectly developed language anxiety.

One of the approaches to overcome language anxiety is through extended practice of the target language as learners who had this opportunity reflected good understanding of the subject matter of their presentation and managed to

interact with the audience despite lack of language proficiency (Nadeem & Rahman, 2013). Moreover, the learners personally realised that they had improved in language skills, particularly in listening and speaking skills as well as interpersonal skills. The study further emphasised that L2 learners must use as many occasions as possible to speak (Liu & Jackson, 2008).

Drama activities offer learners opportunities to participate in oral interaction using a variety of language forms (Long & Porter, 1982). Similar to presentation skills, drama activities are believed to be able to facilitate the type of language behaviour before leading to fluency. L2 learners wish to be proficient in a target language in order to make them be understood. Drama activities on oral English were designed for undergraduate and postgraduate international learners of English language studying in English speaking countries (Gill, 2013). Weeks one to three were made up entirely of communicative non-drama-based lessons, weeks four to six comprised only communicative drama-based methodology, weeks seven to nine reverted to communicative non-drama-based methodology, and weeks ten to twelve were made up of communicative drama-based strategies again. The teaching approach had managed to increase the involvement from the learners when they showed greater interaction among themselves and improvement in their oral English skills. In addition, the learners had more speaking opportunities allowing cooperative learning among the group members creating a more conducive learning environment for them besides gaining confidence to speak in the target language. The learners demonstrated an improvement when they had greater willingness to interact in oral English during the communicative-drama activities than in the earlier session without the drama lessons. The drama activities proved to be effective in developing the L2 learners' speaking skills when 93% of the learners achieved high fluency level and 7% achieved a medium fluency level.

The amount of verbal communication depends on the types of instructional activity, with theory predicting that there would be more English communication during form-focused activities than during meaning-focused activities (Tomita & Spada, 2013). The differences between the activities refer to learners focussing on both form and meaning for the former whilst learners focussing only on meaning for the latter. Twenty-four first year high school learners in Japan aged between 15 and 17 years old were found to produce equally few English turns and used more Japanese than English in both form-focused and meaning-focused activities despite the instruction to use a target language grammar structure to stimulate ideas besides making them feel accepted and motivated to speak in English. Compelling evidence was that some Japanese learners were reluctant to communicate in English, especially when the main focus of the lesson was on communication leading to an expected decrease in their English level proficiency. The lack of utterances in English language was most likely due to the learners having known each other

through communicating in their first language, making them feel unnatural or uncomfortable communicating in the English language.

English language in L2 contexts is dominantly spoken or is the official language which gives benefit to language learners to acquire the language through social interaction; however, in foreign language contexts, social interaction does not happen in English language as the language is not the dominant language spoken (Rogers, 2004). To demonstrate the difference between English language in second and foreign language contexts, an empirical study on learners from Iran and Malaysia was conducted for a year (Bahrani, 2011b). In Iran, English is a foreign language but it is an L2 in Malaysia. Learners in Iran were exposed to audio/visual mass media in informal language learning setting as the language learning input; in contrast to participation in social interaction in informal situation for Malaysian learners. Learners in the English as a foreign language context performed better than the learners in the English as a L2 context indicating that exposure to audio/visual mass media technology was more effective to develop speaking fluency than social interaction. The reason that the Malaysian learners improved their speaking fluency less than the Iranian learners where the latter had no access to social interaction may be supported by zone of proximal development (ZPD) and scaffolding. Deriving from the work of Vygotsky (1978) and in relation to the cognitive development of learners, the ZPD refers to the gap between what a learner can potentially achieve with and without external guidance from adults or peers, and in this study the foreign language learners are believed to have struggled in the process of learning to complete the task. In English as a foreign language contexts, conversations are goal-oriented and meaningful to social needs providing abundant opportunities to operate within the learners' ZPD (Bahrani, 2011b). Scaffolding refers to the necessary help to assist learners in using appropriate language to make the discourse continue. Reflecting on this study, the L2 learners of English received the support from their peers during the social interaction which did not contribute to the learners' speaking fluency.

Communication strategy teaching provides learners with both communicative practice and opportunities to learn (Lam, 2010; Nakatani, 2010). A study investigated the effects of strategy instruction on strategy use and task performance by low and high-proficiency learners of English as a L2 language in an oral classroom (Lam, 2010). This study tested eight strategies considered to be effective to enable learners to overcome potential communication problems at three stages of speech-processing, namely planning and encoding of preverbal messages stage, monitoring the phonetic plan and articulated speech stage and the post-articulatory monitoring stage. The learners were from two intact classes of secondary two in Hong Kong assigned to No Treatment and Treatment groups. The intervention was a total of eight oral lessons over five months for both classes. During the oral lessons, both classes

engaged in a variety of group discussion tasks. The Treatment class received additional instruction on the use of the eight target strategies but the No Treatment class did not receive the additional instruction. The results suggested that the communication strategy instruction was more utilised by the low proficiency learners who demonstrated a consistent increase in frequency of use. This included using consistently more resourcing to help them with ideas and language, demonstrating enhanced ability to reflect on and evaluate their performance, and making greater improvements in group discussion tasks than the high proficiency learners. In general, low proficiency learners made improvements in the task performance and English score. High proficiency learners may not had decided to use or noticed the strategies as often as low proficiency learners and the former might not have had sufficient time to develop the strategy use. To summarise, the communication strategy teaching benefits low proficiency learners more than high proficiency learners.

2.1.1.3 Technology-driven approaches

English language learners in non-English speaking countries ought to be provided with as many learning resources and opportunities as possible (Yang, Gamble & Tang, 2012). Online tools are the main elements in implementing computer-mediated communication (CMC) (Son, 2011) together with audio and video which consequently offer many possibilities for teachers to construct activities around listening and watching different programs (Chinnery, 2006). CMC provides opportunities for L2 learners of English to interact with native speakers and other language learners outside the classroom apart from facilitating collaborative and comprehensible interaction by offering learner-centred interaction occasions (Abrams, 2003; Kenning, 2010; Nadzrah, Hafizah & Afendi, 2013). The four types of synchronous communication environments are audio and text chat, audio-graphic conferencing environments and virtual worlds (e.g., Second Life) (Deutschmann, Panichi, & Molka-Danielsen, 2009).

Synchronous CMC was utilised by Taiwanese learners who were learning French to acquire oral interaction skills and approximately half of them showed an improvement in oral interaction skills (Ko, 2012). They were assigned to three groups with each group received different learning instruction namely video/audio, audio and face-to-face over 18 weeks. Then, all six pairs began with synchronous CMC text chat. Next, pairs from groups 1 and 2 continued with synchronous CMC voice chat. Pairs in group 1 were given headsets/webcams whilst pairs in group 2 were given the headsets only. Meanwhile, Group 3 continued with face-to-face activity. The learners' performance in three oral tests was to check on their improvement in oral skills. The majority of the learners considered the text chat useful for oral production in structuring conversation contexts, formulating thoughts and reflecting on French linguistic features. The text chat was more effective for

learners who had the pre-discussion than those who skipped the pre-discussion activity. The pre-discussion activity helped the learners to scaffold the conversations. Next, for the spoken chat, most learners referred to the prepared written texts than spoken, and according to them, the reference reduced their cognitive load and allowed them to focus more on pronunciation. Most learners agreed the cyclical design had increased their familiarity with the learning environment that consequently had encouraged them to speak without fear. In general, all three environments held the potential to help different types of learners to develop oral skills.

Asynchronous online discussion forum is beneficial for low proficiency English language learners when they became enthusiastic and contributed actively to the discussion task (Nadzrah et al., 2013). It is common for low-level proficiency learners to have low confidence level and feel shy besides demonstrating apprehension when interacting verbally in the target language. The online forum allows the learners to audio and video-record their discussions, listen to the recorded discussions and respond to their peers' ideas and opinions. The learners too responded to the online postings as the effects of having no pressure or feeling anxious in interacting on the online forum. The majority of them perceived that the online platform gave them extended opportunities to practise speaking in English, consequently to improve their speaking skills. The online forum was effective that it developed the learners' self-confidence to interact in the target language. According to the learners, they were not concerned with what people thought of their language ability since the online forum functioned as a useful private space to communicate orally although in reality they were in a social group. They felt more comfortable communicating in an asynchronous online discussion forum compared to face-to-face discussion making them more willing and eager to share their ideas with other group members which that they had difficulty to do in a face-to-face situation.

Synchronous CMC focussing on text-based Internet chat environments was found to benefit intermediate level English proficiency learners in developing their oral fluency and the environment proved to be an indicator for improvement in fluency of the target language (Blake, 2009). There were three different instructional environments - a text-based Internet chat environment, a face-to-face environment and a control environment – and L2 learners of English were randomly assigned to each of the environments. Learners in the Internet Chat group met together with the instructor in a chat room and communicated with each other in real time via typed messages; learners in the face-to-face group met with the instructor in a traditional classroom and used oral English to communicate with each other, and learners in the control group completed online activities but did not interact with either the teacher or other learners. The study found a gain in fluency performance by all the three groups but the gains made by the Internet Chat group were the strongest. The

possible reason for the gain was that learners in the Internet Chat environment communicated in a form of real-time communication in English language with their class members. The environment had managed to reduce the barriers that inhibit communication in a traditional discussion environment by giving learners more privacy as they frame their ideas and put together their thoughts in the L2. Moreover, the learners could see the words and sentences generated by the instructor and other participants in the course, and they had extended opportunity to focus on his or her own language when preparing the sentences before positing them to the chat. The learners in the chat environment could immediately see any grammatical or vocabulary correction made by the instructor. In contrast, learners in the face-to-face classroom environment had limited class discussion and to one speaker at a time while observing the rules of turn-taking and discourse conventions that resulted in them making relatively small gains in fluency. Finally, learners in the control group studied independently and did not use English language to communicate.

Automatic speech recognition (ASR) incorporated into language learning software programs provided learners with a self-access learning environment and enhanced oral interaction skills (Chen, 2011). Low-intermediate level Taiwanese college learners had problems with English pronunciation and practised oral skills using the ASR oral skills training website. They were exposed to six types of online and interactive exercises that provided immediate feedback on their performance. In addition to the learning content, a tracking device was also developed to help learners monitor their own participation and progress. The learners agreed on the benefits of the ASR for their pronunciation/speaking and other language skills. In addition, the learners believed the interaction with computers created a lower anxiety speaking environment.

Voice over instant messaging (VoIM) offered learners opportunities to practise in authentic foreign language discussion (Yang et al., 2012). Freshmen English learners participated in eight VoIM discussions in addition to their regular coursework. Different types of online discussions were examined—unstructured (Treatment 1), structured without the facilitation of English teaching assistants (Treatment 2) and structured with the facilitation of English teaching assistants (Treatment 3). The participation of the English teaching assistants in discussion activities for Treatment III was as models for the learners to imitate and there was an increase in the confidence level of the learners in speaking English. Without the facilitation of English teaching assistants, learners in Treatments I and II demonstrated lower levels of participation. The study proved practice as integral to the development of fluency in the target language; thus, the lack of facilitation and reduced practice are likely to be the two main factors contributing to the results.

The problems of L2 learners are acknowledged but language teachers are attempting various approaches including using technology as a learning tool aiming to assist learners to overcome language anxiety and for them to be able to improve their L2 proficiency. The following section defines language anxiety and FLCAS before discussing the issue of language anxiety.

2.2 Language anxiety

It is acknowledged that learning an L2 can be a stressful activity (Hewitt & Stephenson, 2012). Language anxiety has been the focus of studies associated with L2 learning since this well-documented psychological construct has been taken into account as an influential factor in the domain of English as a foreign language learning (Zheng, 2008). The past three decades have seen an increasing interest in research on language anxiety and researchers have been interested to discover the role, factors and consequences of anxiety in language learning.

2.2.1 Defining language anxiety

Affective factors are among the determinants that contribute to the success in second or foreign language acquisition (Krashen, 1987) and one of them is anxiety (H. D. Brown, 2007) and it is the most powerful predictor of the learners' performance (Liu & Huang, 2011). Described as being a common obstacle among L2 learners (Young, 1991), language anxiety is further elaborated as the tendency to experience anxious responses during language learning or communication (MacIntyre, 1999). It is believed that language anxiety is a trait that recurs in language learning (MacIntyre & Gardner, 1991a) and it has been found to interfere with many types of learning, not only language learning besides still being an important variable for research (Horwitz, 2001). Psychologically, anxiety is associated with subjective feelings of tension, apprehension, nervousness and worry as a result of an arousal of the autonomic nervous system (Spielberger, 1983). Horwitz et al. (1986) and Horwitz et al. (1991) later affirmed that foreign language anxiety arises from attempts made by an individual to communicate and is evaluated according to uncertain or unknown linguistic properties. Interacting in foreign languages is associated with the complex and non-spontaneous mental operations required for communication. Any performance in the foreign language is likely to challenge self-concepts leading to fear or even panic.

Earlier studies in language learning reported inconsistent results in attesting the existence of anxiety reactions (Horwitz, 2001; Trang, 2012). Thus, Scovel (1978) suggested language researchers should specify the type of anxiety they were measuring. Then, Horwitz et al. (1986) proposed that language anxiety was a situation-specific type of anxiety responsible for negative emotional reactions happen during language learning. They further explained the cause of anxiety is the inherent unauthenticity relating to immature L2 communicative abilities. As a consequence, Horwtiz et al. (1986) developed and offered the Foreign Language Classroom Anxiety Scale (FLCAS) as a means to measure anxiety experienced during foreign language learning in the classroom. The instrument has not only resolved the issue of appropriate measurement of anxiety (Horwitz, 2001) but the FLCAS has "initiated many other studies in language anxiety" (Chan et al., 2012, p. 157). The instrument measures language anxiety and has been widely accepted based on a number of subsequent studies and consequently used, demonstrating its reliability to measure language anxiety. Furthermore, it is argued that second or foreign language learning is not affected by all forms of anxiety but only by a construct of anxiety specific to the language acquisition context (Gardner, 1985). The next section elaborates further on the FLCAS.

2.2.2 Foreign language classroom anxiety scale

The FLCAS is a self-report instrument assessing the degree of anxiety specific to L2 classroom settings. Based on the learners' self-report, clinical experience, a review of related instruments, and the researchers' personal experience as language teachers, the instrument differentiates three main sources of language anxiety. The sources are the concepts that make up the FLCAS and are defined by Horwitz et al. (1986) as:

1. Communication apprehension – a type of shyness characterised as fear of, or anxiety about, communicating with people (p. 127);

2. Fear of negative evaluation – the apprehension about others' evaluations, avoidance of evaluative situations (p. 128); and

3. Test anxiety - the type of performance anxiety resulting from a fear of failure in an academic evaluation setting (p. 127)

The instrument is a questionnaire survey made up of 33 items – seventeen items measure communicative apprehension (item numbers 1, 4, 5, 6, 9, 11, 12, 14, 18, 22, 24, 26, 27, 28, 29, 32 and 32), eleven items measure fear of negative evaluation (item numbers 3, 7, 13, 15, 16, 17, 20, 23, 25, 31 and 33) and five items measure test anxiety (item numbers 2, 8, 10, 19 and 21). The original instrument included 24 positively worded and nine negatively worded statements (item numbers 2, 5, 8, 11, 14, 18, 22, 28 and 32) and the total score

for the 33-items ranged from 33 to 165. The responses to the negatively worded items are reversed and recoded before calculating total scores. The questionnaire uses a 5-point Likert scale ranging from strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4) to strongly agree (5), with high total scores indicating high levels of foreign language anxiety. Within the possible mean score range from 1 to 5, the following levels are generally identified: Scores above 4 signify high anxiety; scores within 3 and 4 denote a middle level of anxiety; and scores below 3 imply little or no anxiety.

Since its development, the FLCAS has gained widespread popularity in researching the role of anxiety not only in English language but also in Chinese and Spanish languages. Preliminary evidence from the original instrument demonstrated internal reliability achieving an alpha coefficient of .93 whilst the test-retest reliability of the instrument over eight weeks yielded an alpha coefficient of .83 (p < .001) (Horwitz et al., 1986).

Subsequent studies on language anxiety have supported the existence of language skill-specific anxiety. For those studies, the FLCAS has been adapted to match the anxiety constructs in order to identify more precisely the source of anxiety in relation to proficiency in a specific language skill (Cheng, Horwitz, & Schallert, 1999). As a consequence, modified versions of the FLCAS have been developed including foreign language speaking anxiety (He, 2013), foreign language listening anxiety (Serraj & Nordin, 2013) and foreign language reading anxiety (Huang, 2012; Jafarigohar, 2012; Tsai & Li, 2012).

After presenting the concept of language anxiety and the FLCAS as a reliable instrument to measure language anxiety level, the next section reviews past research on the relationship between language anxiety and language achievement.

2.2.3 Language anxiety and achievement

Reviews of language anxiety studies have identified various instructional settings where the studies were undertaken, with varying first language learners, for different target languages, adopting different research designs and for various language learning objectives (see Table 2-1).

The discussion in this section and the next section will focus on language anxiety in relation to English language learning as the target language. This section reviews the relationship between language anxiety and language achievement. Language achievement refers to a learner's proficiency as the result of what has been taught or learned after a period of time (Richards,

Platt, & Platt, 1992). Language proficiency refers to a learner's skill in using a language for a specific purpose such as how well a person can read, write, speak, or understand language (Richards et al., 1992) .

Table 2-1
Summary of studies on second/foreign language anxiety

Year	Author	First language	N	Instructional settings	Target language	Research design	Reliability coefficient	Language skill/ component
2013	Akbari & Sadeghi	Kurdish-Persian	191	Tertiary	English	Quantitative (4 factors)	.83	-
	Al-Shboul et al.	Arabic	6	Tertiary	English	Qualitative	.93	Reading
	Gkonou, C.	Greece	8	Language institute	English	Qualitative	-	-
	Gomari & Lucas	Persian	100	Tertiary	English	Quantitative (4 factors)	-	-
	He, D.	Chinese	332	Tertiary	English	Mixed methods	-	Speaking
	Huang & Hwang	Chinese	124	Tertiary	English	Quantitative	.87	-
	Khodadady & Khajavy	Persian	264	Language institute	English	Quantitative	-	-
	Liu, Hui-ju	Chinese	142	Tertiary	English	Quantitative	.93	-
	Liu & Zhang	Chinese	1697	Tertiary	English	Quantitative	.90	-
	Mamhot et al.	Tagalog	20	Secondary	English	Quantitative	-	-

Year	Author	First language	N	Instructional settings	Target language	Research design	Reliability coefficient	Language skill/ component
			20	Tertiary				
	Kamarulzaman et al.	Multi	119	Secondary	English	Quantitative (4 factors)	.82	-
	Mahmoodzadeh, M.	Persian	96	Language institute	English	Quantitative (adapted FLCAS)	.86	-
	Nahavandi & Mukundan	Persian Turkish	522	Tertiary	English	Quantitative	.93	-
	Noori, M.	Persian	30	Secondary & Language institute	English	Quantitative (non-FLCAS)	-	-
	Park & French	Korean	948	Tertiary	English	Quantitative	.94	-
	Rajanthran et al.	Various	108	Tertiary	English	Mixed methods	-	Speaking & Writing
	Serraj & Noreen	Persian	210	Language institute	English	Quantitative	-	Listening
	Talebinejad & Nekouei	Persian	42 (S) 9 (T)	Language institute	English	Mixed methods	-	-

Year	Author	First language	N	Instructional settings	Target language	Research design	Reliability coefficient	Language skill/ component
	Zhang, Xian	Chinese	300	Tertiary	English	Qualitative	-	Listening
	Zhao et al.	English	114	Tertiary	Chinese	Mixed methods	.95	Reading
2012	Atasheneh & Izadi	Persian	60	Tertiary	English	Quantitative (adapted FLCAS)	-	Listening
	Azarfam & Roselan	Persian	3 (S) 3 (T)	Tertiary	English	Qualitative	-	Speaking
	Bensoussan, M.	Hebrew Arabic Russian Others	265	Tertiary	English	Mixed methods (non-FLCAS)	-	Reading
	Capan, S. A.& Simsek, H.	Turkish	131	Tertiary	English	Quantitative	-	-
	Chan et al.	Multi	631	Tertiary	English	Quantitative	.88	Speaking
	Ferdous, F.	Bengali	58	Tertiary	English	Quantitative	-	-

Year	Author	First language	N	Instructional settings	Target language	Research design	Reliability coefficient	Language skill/ component
	Yamat, H. & Bidabadi, F. S.	Persian	63	Tertiary	English	Mixed methods (4 factors)	.87	-
	Hewitt, E. & Stephenson, J.	Spanish	40	Tertiary	English	Quantitative	.93	Speaking
	Huang, Q.	Chinese	121	Tertiary	English	Quantitative	.89	-
	Idri, N.	Arabic	359	Tertiary	English	Mixed methods	-	-
	Liu,, H.-j.	Chinese	150	Tertiary	English	Quantitative	.96	-
	Jafarigohar, M. & Behrooznia, S.	Persian	112	Tertiary	English	Quantitative	-	Reading
	Mahmoodzadeh, M.	Persian	71	Language institute	English	Quantitative	.82	Speaking
	Mesri, F.	Persian	52	Tertiary	English	Quantitative (adapted FLCAS)	-	-
	Mohammadi Golchi, M.	Persian	63	Language institutes	English	Quantitative (non-FLCAS)	.84	Listening

Year	Author	First language	N	Instructional settings	Target language	Research design	Reliability coefficient	Language skill/ component
	Ezzi, N. A. A.	Arabic	163	Tertiary	English	Quantitative	-	-
	Piechurska-Kuciel	Polish	393	Secondary	English	Quantitative	.94	-
	Toth, Z.	Hungarian	16	Tertiary	English	Qualitative	-	-
	Trang et al.	Vietnamese	49	Tertiary	English	Qualitative	-	-
	Tsai, Y.-C. & Li, Y.-C.	Mandarin Chinese	302	Tertiary	English	Quantitative (non-FLCAS)	.80	Reading
	Wei, J. & Yodkamlue, B.	Chinese	320	Tertiary	English	Mixed methods	-	-
	Wong, M. S.-L.	Various	68	Teachers Training Institute	English	Quantitative	.86	-
2011	Atef- Vahid, S. & Kashani, A. F.	Persian	38	Secondary	English	Quantitative (4 factors)	.77	-
	Cui, J.	Chinese	105	Secondary	English	Quantitative (4 factors)	-	-

Year	Author	First language	N	Instructional settings	Target language	Research design	Reliability coefficient	Language skill/ component
	Khattak et al.	Urdu	62	Tertiary	English	Mixed methods	-	-
	Khunnawut, S.	Thai	100	Tertiary	English	Mixed methods	-	Speaking
	Liu, M. & Huang, W.	Chinese	980	Tertiary	English	Quantitative	-	-
	Liu et al.	Mandarin Chinese	24	Tertiary	English	Mixed methods	.92	-
	Lu, Z. & Liu, M.	Chinese	934	Tertiary	English	Mixed methods	.92	-
	Lucas et al.	Various	250	Tertiary	English	Quantitative	-	-
	Mak, B.	Chinese	313	Tertiary	English	Mixed methods (4 factors)	.91	Speaking
	Riasati, M. J.	Persian	3	Language institute	English	Qualitative	-	-
	Szyszka, M.	Polish	48	Teacher training institute	English	Quantitative	.94	Pronunciation
	Toth, Z.	Hungarian	5	Tertiary	English	Mixed methods	-	Listening
	Wu, Hui-Ju	Chinese	91	Tertiary	English	Quantitative	.95	Reading

Year	Author	First language	N	Instructional settings	Target language	Research design	Reliability coefficient	Language skill/ component
	Yao, W. & Jingna, L	Chinese	92	Tertiary	English	Quantitative	-	Reading
2010	Awan et al.	Urdu	149	Tertiary	English	Quantitative	.77	-
	Ay, S.	Turkish	160	Primary	English	Quantitative	.83	Listening, speaking, reading, writing & grammar
	Duxbury & Tsai	Various & Taiwanese	385	Tertiary	Various languages	Quantitative		-
	Fang-peng & Dong	Chinese	82	Tertiary	English	Quantitative	.68	Speaking
	Huang et al.	Chinese	158	Tertiary	English	Quantitative	.82	-
	Kao & Craigie, P.	Chinese	101	Tertiary	English	Quantitative	.83	-
	Kocak, M.	Turkish	20	Tertiary	English	Qualitative	-	Speaking
	Subasi, G.	Turkish	55	Tertiary	English	Mixed methods	.87	Speaking
	Suwantarathip & Wichadee	Thai	40	Tertiary	English	Mixed methods	-	-

Year	Author	First language	N	Instructional settings	Target language	Research design	Reliability coefficient	Language skill/ component
	Wu, Kun-huei	Chinese	66	Tertiary	English	Quantitative	-	-
	Semmar, Y.	Arabic	238	Tertiary	English	Quantitative	.81	-
2009	Andrade & Williams	Japanese	243	Tertiary	English	Quantitative (non-FLCAS)	-	
	Coryell & Clark	English	12	Tertiary	Spanish	Qualitative	-	-
	Marcos-Llinas & Garau	English	134	Tertiary	Spanish	Quantitative	.94	-
	Noormohamadi, R.	Persian	46	Tertiary	English	Quantitative	.94	-
	Pichette, F.	French	186	Tertiary	English & Spanish	Quantitative (non-FLCAS)	-	Reading and writing
	Tallon	English	413	Tertiary	Spanish	quantitative	-	-
	Toth, Z.	Hungarian	117	Tertiary	English	Mixed methods	.93	-
	Tsiplakides & Kermaida	Greece	15	Secondary	English	Qualitative	-	Speaking

N=number of participants

The feeling of anxiety is experienced not only by normal children, but also by gifted learners. Malaysian gifted learners learning English as an L2 experienced certain levels of English language anxiety (Kamarulzaman et al., 2013). Though the learners showed excellence in the English language tests, their communication did not exhibit the same proficiency. A negative correlation was found between English language anxiety and English language achievement based on the English language final examination. However, there was no significant difference in the English language anxiety between the genders. This finding implies that the higher the level of language anxiety of a learner, the lower the academic performance of the learner is.

Female Iranian learners from a high school and a language institute had the same level of English proficiency but were significantly different in terms of test anxiety (Noori, 2013). The learners in the high school were more test anxious than the learners at the language institute. The correlation coefficient test found a small positive correlation between the overall achievement scores and test anxiety level meaning that the scores did not give impact on the test anxiety. However, the main factors that contributed to the test anxiety were fear of negative evaluation, low proficiency level and negative comments from the teachers before and after the examination. The study found that test anxiety lowered the learners' self-esteem, concentration level and proficiency level.

Third-year female Iranian high school learners aged 17 were found to experience from low to high-anxiety levels while learning English language in class (Atef-Vahid & Kashani, 2011). Their English achievement was measured through the final standardized English examination administered by the school. The correlational analysis revealed that the total anxiety scores had a significantly moderate negative correlation with the total final English examination scores. Four different variables of anxiety (communication anxiety, test anxiety, fear of negative evaluation, English classroom anxiety) were measured and the results of Pearson correlational analysis indicated that English language achievement was modestly correlated with all the four anxiety variables. Of the four variables of anxiety, English classroom anxiety had the highest correlational value with English achievement.

Similarly, a study conducted in Pakistan with 149 undergraduate learners of English as a foreign language also verified the negative correlation between language anxiety and achievement indicating that as the level of anxiety increases, the academic achievement decreases (Awan et al., 2010). Other findings of the study included that male learners were significantly more anxious than the female learners and the assumption made was that the latter had greater confidence as well as greater ability to learn a new language while coping with the feelings of anxiety and nervousness. Another finding was that the learners with parents who were illiterate or less educated were more anxious than learners

with parents who were more educated; however, the reason for this finding was not discussed.

A study with Taiwanese learners confirmed that foreign language anxiety is an important determinant of English language achievement for English major undergraduate learners (Kao & Craigie, 2010). The learners were grouped into Group A that reported the lowest level of English language anxiety and Group C that reported the highest level. Group B was between Groups A and C. The results reported that Group C learners achieved low English achievement and Group A achieved high English achievement. The study concluded the presence of debilitating anxiety that affected English achievement.

In contrast to the learners from Pakistan (Awan et al., 2010), a study with undergraduate learners from various disciplines enrolled in an English conversation course in Korea revealed that the female learners reported significantly higher language anxiety compared to male learners (Park & French, 2013). The study further found that gender and anxiety measured by the FLCAS were significantly related to L2 performance determined by the final grade, with females and high anxiety students receiving a higher grade than males and low anxiety learners. Surprisingly, this study found positive relationship between anxiety and performance as a result of facilitating anxiety. The argument for this finding was that the female learners showed higher motivation and greater interest in the course grades that resulted in better performance than their male counterparts.

The section summarises language anxiety research in various classroom contexts on different first language learners. The section has demonstrated the negative relationship between language anxiety and achievement of second or foreign language learners in almost all studies. In general, language anxiety interferes with L2 learning and performance. The next section reviews previous studies on the relationship of language anxiety and language skills.

2.2.4 Language anxiety and language skills

A considerable amount of literature has been published on the relationship between language anxiety and language skills that found learners who experienced language anxiety encountered specific task-performance issues. Reading is a skill learnt from linguistically comprehensible written texts in order to enhance the process of language acquisition (Richards & Renandya, 2011). There has been infrequent investigation on the sources of anxiety for the acquisition of reading skill (Al-Shboul, Sheikh Ahmad, Mohamad Sahari, & Zainurin, 2013; Saito, Horwitz, & Garza, 1999; Wu, 2011). Nevertheless, several attempts have been made to explore second or foreign language anxiety of a few first language learners including Arabic (Al-Shboul et al.,

2013), Chinese (Q. Huang, 2012; Tsai & Li, 2012), Persian (Jafarigohar, 2012), Turkish (Ay, 2010), and other foreign language learners (Bensoussan, 2012).

Relatively few studies have addressed the effects of language anxiety on writing skills. Writing skills is as difficult as interaction skill and "the difficulty lies not only in generating and organising ideas, but also in translating these ideas into readable text" (Richards & Renandya, 2011, p. 303). There have been rare studies of language anxiety in relation to writing skills in isolation but a number of studies have been published in conjunction with other language skills. Rajanthran et al. (2013) conducted a study with undergraduate international learners from different countries where English is a foreign language. The foreign language anxiety levels on speaking and writing skills of the learners were assumed to be the potential affective factors affecting their performance in language acquisition and language learning. Another study found that the seventh grade learners were more anxious than the fifth and six grades learners on the productive skills – speaking and writing but the fifth graders were more anxious than the sixth and seventh graders on the receptive skills – listening and reading (Ay, 2010).

The other language skill is listening, which is the most frequently used skill in foreign language learning (Vogely, 1998) since learners comprehend information through listening. This has raised the importance of listening skills as a means to achieve success in language learning. Learning a second or foreign language often makes learners worry about misunderstanding what they listen to and misinterpreting the message (MacIntyre, 1995). Several attempts have been made at explaining the relationship between language anxiety and listening skills (Atasheneh & Izadi, 2012; Golchi, 2012; Serraj & Nordin, 2013; Zhang, 2013).

A group of Iranian learners from a private language institute learning English as foreign language were found to have a significant negative correlation between listening anxiety and listening comprehension implying that as foreign language listening anxiety decreases, the learners' listening comprehension performance increases (Serraj & Noordin, 2013). Next, a significant negative correlation was found between foreign language anxiety and the learners' listening comprehension score implying that the higher the foreign language anxiety of the learners, the lower the scores in the listening comprehension. Finally, there was a positive correlation between foreign language class anxiety and foreign language listening anxiety of the learners implying that as language class anxiety had an impact on the listening anxiety.

A significant moderate negative correlation was identified between listening test results and foreign language anxiety on a study carried out with intermediate-level Iranian learners majoring in English translation (Atasheneh

and Izadi, 2012). Another study on Iranian learners learning at two language institutes in Iran revealed negative correlation between listening comprehension and listening strategy (Golchi, 2012). The result indicates that experiencing high anxiety is associated with fewer strategies. Both results further summarise the increase in listening anxiety is associated with lower listening comprehension performance.

Similar to the previous studies, first year Chinese learners majoring in English language experienced language listening anxiety that deteriorated their listening performance (Zhang, 2013). In addition, the study suggested that different individual factors, such as self-efficacy, motivation, learning strategies and self-regulation, may also have an impact on foreign language learning.

This section has briefly presented the negative correlation between language anxiety and specific language skills found in past research – reading, writing and listening. It is intuitive that anxiety inhibits learning performance in regards to the language skills. The next section will discuss in detail past studies of language anxiety in response to speaking skills which is the main skills focus in the present study.

2.2.4.1 Speaking

Speaking in an L2 is a complex behaviour used for many different purposes (Richards & Renandya, 2011) and "implies knowledge of the rules that account for how spoken language reflects the context or situation in which speech occurs, the participants involved and their specific roles and relationships, and the kind of activity the speakers are involved in" (Richards & Renandya, 2011, p. 201). Oral interaction as a result of speaking is an important language skill in learning an L2; however, speaking in the L2 is the most anxiety provoking aspect (Horwitz, 2001; Horwitz et al., 1986; Phillips, 1992; Young, 1990).

Past research on speaking anxiety explored English as the second or foreign language learnt extensively by learners of Chinese (He, 2013; Mak, 2011), Persian (Azarfam & Baki, 2012; Mahmoodzadeh, 2012, 2013), Spanish (Hewitt & Stephenson, 2012), Thai (Khunnawut, 2011), Turkish (Koçak, 2010; Subasi, 2010), and the Greece (Tsiplakides, 2009). In the Malaysian context, research on speaking anxiety was carried out on Malaysian final year undergraduate learners (Chan et al., 2012) as well as international learners studying English language (Rajanthran et al., 2013).

By the time Chinese learners of English as a foreign language embark on their undergraduate programme, they would have at least six years of English instruction and can pass English examinations with high grades but they are

actually weak at speaking English. They still have problems in speaking as a result of anxiety and the four most prominent ones were speaking in the foreign language on an unfamiliar topic, fear of being tested orally in the foreign language, being given little time to think before speaking in the foreign language and lack of confidence (He, 2013). Two additional reasons that significantly contributed to the foreign language anxiety but unknown to the teachers were lack of vocabulary of the target language and worry about being looked down upon if mistakes were made.

The five factors identified by factor analysis on the speaking-in-class anxiety for Chinese learners in Hong Kong studying English language were speech anxiety and fear of negative evaluation; discomfort when speaking with native speakers; negative attitudes towards the English classroom; negative self-evaluation; and fear of failing the class or consequences of personal failure (Mak, 2011). The additional factors leading to speaking-in-class anxiety highlighted by them included speaking in front of the class without preparation, being corrected when speaking, inadequate wait-time and not being allowed to use the first language in a L2 class. The implications of this study would be relevant to language teachers teaching non-native speakers of any languages at any level of education – primary, secondary or tertiary.

A study on Chinese college learners who were of different proficiency levels in English language confirmed that the higher the anxiety about speaking in English a learner experienced, the lower the ability for him or her to speak in English (Fang-peng & Dong, 2010). The study affirmed that the influential factors that contributed to the affective factor included attention to intonation and pronunciation; motivation, and interference of first language. The correlation between anxiety and intonation was very significant, indicating that the more a learner pays attention to his/her intonation, the more anxious he/she will be. The correlation between anxiety and interest was very significant which means the more a learner is motivated, the less anxious he/she will be. The correlation between anxiety and concentration on pronunciation was very significant, indicating that the more a learner concentrates on his/her pronunciation when he/she speaks English, the more anxious he/she will be. The correlation between anxiety and first language was very significant implying that the more a learner thinks about a question in Chinese at first when he/she speaks English then translates the ideas into English word by word, the more anxious he/she will be. The study concluded that speaking in English as a foreign language requires psychological preparation and efforts from the learners.

Realising that past studies on language anxiety had investigated the phenomenon of foreign language anxiety and its effects on the learners' language proficiency, Mahmmodzadeh (2012) conducted a study aimed at exploring the interlanguage system of English as foreign language learners'

linguistic aspect. The two levels of proficiency – lower and upper-intermediate - learners were selected through a convenience sampling studying at two English language institutes in Iran. The study adapted the FLCAS as an instrument developed by Horwitz et al. (1986) retaining 18 items measuring interlanguage phonology (6 items), interlanguage grammar (6 items) and interlanguage meaning system (6 items) with a five Likert-type scale. The findings indicated that the Iranian learners were more likely to attribute their greatest foreign language speaking anxiety to their interlanguage meaning system as compared with the other two subsets of their interlanguage system. In terms of the gender differences, the results suggested that the female participants were found to be more prone to experiencing foreign language speaking anxiety within the framework of their interlanguage system. With respect to level differences, the results demonstrated that gaining more foreign language knowledge may not necessarily lead to a substantial reduction in experiencing foreign language speaking anxiety, since proficient learners were highly subjected to the anxiety-provoking factors within their interlanguage system than the less proficient learners.

Complementary to the earlier study, another study investigated the influence of gender on the learners' foreign language anxiety (Mahmoodzadeh, 2013). The intermediate level adult learners of Iran from two foreign language institutes were grouped into five mixed-gender classrooms and four matched-gender classrooms. The matched-gender classrooms consisted of two male-oriented classrooms and two female-oriented classrooms. The study adapted the FLCAS developed by Horwitz et al. (1986) retaining only 16 items on a five point Likert-type scale grouped under two main concepts - lack of confidence and communication apprehension, and fear of making mistakes and negative evaluation to be self-assessed by the learners. The findings did not favour the mixed-gender classrooms which was an anxiety-provoking teaching context in Iran since the presence of the opposite gender in the classrooms was found to cause a statistically significant amount of language anxiety among the Iranian learners studying in English as a foreign language classroom.

Learners and teachers have different perspectives on the factors that cause language anxiety of the learners that consequently lower the quality of oral performance of the learners (Azarfam and Roselan, 2012). The learners narrated that they did not participate in speaking activities since they believed they were not good at speaking and were not able to communicate properly in the target language. Furthermore, they feared their disability in producing perfect and faultless sentences. The learners also highlighted their anxiety over errors in speaking. Finally, they did not feel comfortable in the English classroom for fear of being called on to respond in the target language. The language teachers agreed that language anxiety was a serious affective factor that could block the language acquisition and stressed the knowledge in and

less exposure to the target language as the contributing factors to speaking anxiety.

Malaysian graduates are challenged with oral communication competencies. It is acknowledged that the graduates who have better English communication skills have better opportunities for employment and promotion (Chan et al., 2012). Malaysian L2 learners have a wide experience in taking English language tests including the oral test and Horwitz et al. (1986) argue that L2 learners are inclined to experience both test anxiety and oral communication anxiety simultaneously during oral tests. A study with 700 undergraduate final year learners from a public HEI in Malaysia confirmed the correlation index between English speaking anxiety and English speaking test anxiety meaning that as the level of speaking anxiety in English language increases, the level of test anxiety also increases (Chan et al., 2012). The results of the study found that 11% had a high level of anxiety towards speaking in English and 7% experienced a high level of test taking anxiety in English language. In relation to gender, the male learners were found to be more anxious than female learners when speaking in English language as well as experiencing greater levels of speaking test anxiety though both differences were not significant. These findings suggest that most of the Malaysian learners were not extremely affected by anxiety when they had to speak in English language as they are said to be encultured in English as an L2 context. Taking speaking tests in English has been quite the norm within the learners' lives too.

A group of international learners from different countries took up a preparatory English Programme in Malaysia before they gained admission into foundation and degree programmes were found to be conscious of the various rules needed to speak English language and they required some time to formulate sentence structure or to recall vocabulary before uttering responses (Rajanthran et al., 2013). Based on the interview responses, the learners did not feel comfortable when required to speak to their teachers and would easily feel frustrated when the teachers could not understand them or when the teachers corrected their sentences. Comparing between speaking and writing skills, the learners felt more confident in writing classes since they had clear guidelines and sufficient time to complete writing tasks assigned.

A replication study of Phillips (1992) employed a number of research instruments namely the FLCAS developed by Horwitz et al. (1986), an oral performance instrument used by Phillips (1992), eight oral performance criteria, two language ability instruments, two language anxiety prediction questions, two post-oral exam interview questions and the English language proficiency test (Hewitt & Stephenson, 2012). A number of results were obtained. First, the correlation between foreign language anxiety and the learners' oral exam scores was moderately negative suggesting that learners who exhibited higher levels of language anxiety performed more poorly on

their oral exam than did their more relaxed counterparts. Second, correlations between the oral proficiency test and oral exam grade indicated that learners who obtained higher scores on the English proficiency test achieved higher grades in the oral and written exams than their counterparts. Third, the three anxiety groups − low, moderate and high − revealed statistically significant differences on their average oral exam scores. The high-anxiety group received significantly lower mean grades on the oral exam than both the moderate-anxiety and low-anxiety groups.

English is a foreign language in Thailand and Thai learners study English language from pre-school. Undergraduate learners would have had an average of 12 years learning English when they start their undergraduate programme. Investigating the anxiety provoking causes of learners enrolled in an English conversation course, gender did not significantly correlate with the degree of anxiety of the learners (Khunnawut, 2011). However, the experience of speaking English with foreigners had a significant relation with the degree of anxiety. This means that the learners who did not have experience of speaking English with foreigners indicated a higher degree of anxiety. It was evident from the study that the duration of learning English language did not significantly correlate with the level of anxiety amongst the learners. Notwithstanding, the cohort with the shortest duration of English learning showed their feeling of anxiety to the highest extent. Furthermore, the learners demonstrated a high degree of anxiety due to their inability to comprehend their teachers well in the classroom. Further, they felt anxious if they did not succeed in their English learning.

A classroom-based case study examined the characteristics of anxious students from a lower secondary school in Greece and aged between 13 to 14 years who were at intermediate level and had studied English for a total of 5 years (Tsiplakides & Keramida, 2009). Based on the responses of the semi-structured interviews, the study found that six of the learners experienced English language speaking anxiety due to a) fear of negative evaluation from their peers and b) perception of low ability in relation to their peers. They were unwilling to participate in speaking activities due to a number of factors - they believed that they were not good at speaking; they feared that their peers would evaluate them negatively; and they believed that they had to produce faultless sentences. In addition, all of the anxious learners feared that mistakes in speaking activities would destroy their good social image. When the learners were asked to participate in speaking tasks with the teacher only, without the presence of their peers, the anxious learners indicated extensive willingness to participate and experiment with language.

Then, the study started an intervention where lessons were held three times a week for a period of forty-five minutes each. The effectiveness of the interventions was assessed on the basis of the a) learners' willingness to

participate in speaking tasks, and b) language performance in speaking activities measured in terms of both accuracy and fluency at the end of the school term. Based on the classroom diary, the anxious learners were significantly more willing to participate in speaking activities and they did not avoid eye contact with the teacher, instead they looked directly at the teacher more often. In respect to English language speaking performance based on the speaking tasks, the learners showed an improvement. Though they still made errors, in most instances it did not deter them from trying to communicate. At the end of the school year, the learners exhibited many characteristics of fluency, such as increased ability to concentrate on content rather than form, and increased conversational speed. In addition, they also showed more qualities of natural conversation, such as more appropriate use of intonation and stress as well as ability to produce continuous speech without breakdown of communication. It was also realised that the learners did not directly revert to their mother tongue when they encountered difficulty but tried to express themselves in English, using gestures when necessary, and developed the strategy of asking the teacher for help. To conclude, the project work showed an improvement on the Greek learners' speaking accuracy and fluency by providing them with ample opportunities to practise language in a "natural" setting, negotiating for meaning, and helped them to develop strategies on getting their message across despite language difficulties.

Cultural background was not a factor of anxiety when speaking; instead the learners used different choices of strategies to overcome anxiety (Zhiping & Paramasivam, 2013). A group of international postgraduate learners from a class in a Doctor of Philosophy program included Nigerians, Iranians and Algerians. For the learners English was an L2 to Nigerian learners whilst English is a foreign language to Iranian and Algerian learners. Based on the qualitative data analysis the Nigerian learners did not exhibit anxiety in contrast to the Iranian and Algerian learners. Learners from both Iran and Algeria mentioned their fear of being in public and shyness, fear of negative evaluation and fear of speaking inaccurately. Due to these factors, it was observed that in the classroom the learners kept silent, avoided eye contact and felt at ease to sit with their friends from the same country.

Hungarian first year learners majoring in English were grouped into most anxious and least anxious groups and both groups were required to have conversation practices with the native speaker from England who acted as the interlocutor (Toth, 2012). The one-to-one conversations with the interlocutor were based on three tasks – telling information about oneself, expressing opinion on an issue and describing and interpreting visual stimuli. Learners with high-anxiety scores performed more poorly than their counterparts in the low-anxiety group. High-anxious learners did not have much opportunity to communicate spontaneously, present their views or argue about a controversial issue, and did not fluently interpret the visual. Furthermore, they had poor

communicative ability, less fluent and more hesitant speech, limited lexical resources and grammar knowledge, as well as poor pronunciation and intonation. In general, the high-anxious learners did not communicate effectively. The native-speaking interlocutor awarded lower ratings to the high-anxiety group than the low-anxiety group in terms of overall proficiency, task performance, interaction skills and depth of answers.

Toth (2009) wanted to find out if foreign language anxiety was a general characteristic for learners at the early stage of language learning or was the characteristic of language learners regardless of the stage. For the purpose of the study, first year English majors from one university participated in the study and responded to the translated version (Hungarian) of the FLCAS (Horwitz et al., 1986) and a set of open-ended questions. The results of the survey guided the researcher to categorise the learners into non-anxious (20%), slightly anxious (58%), considerably anxious (21%) and very anxious (2%). The five main categories of anxiety for the Hungarian learners included fear of making language mistakes, of making grammatical mistakes, of using incorrect grammar, of using inappropriate sentence structure, and knowing one's mistake that would make them feel discomfort, embarrassed and frustrated. The subsequent study conducted on the Hungarian learners with high anxiety level proved that foreign language anxiety was not restricted to the beginners or advanced levels of second or foreign language learners (Toth, 2011).

High anxiety level of Turkish undergraduate learners responded to an open-ended questionnaire in relation to anxiety in a speaking-listening course (Koçak, 2010). The six most frequently mentioned reasons included lack of word knowledge, lack of grammar and syntax knowledge, fear of failure, lack of practice opportunity, not being able to speak English and being hesitant to wait while listening. Based on these responses, the researcher focused more on speaking activities such as meeting and talking to the learners after class hours and had informal conversations in the target language. With this information, the researcher assigned more pair and group activities with topics to discuss in class for two weeks for a total of 16 hours. In addition, the researcher gave the learners extra information as well as written and oral exercises on vocabulary, grammar and syntax. The learners were encouraged to apply the knowledge in their conversations with peers and the researcher himself. At the end of the second week an interview session was held with the learners who mentioned the comfort they had gained after the two weeks learning and felt confident that they had improved in the language proficiency enabling them to communicate in the target language.

Turkish learners learning English as a foreign language confirmed the existence of a relationship between fear of negative evaluation and self-perceived ability that affected their anxiety level (Subasi, 2010). The learners

who had a strong fear of negative evaluation and low self-perceived ability experienced high anxiety levels. The first year undergraduate learners from an English language teacher department indicated a positive correlation between an individual's fear of negative evaluation and his/her anxiety level. The high anxious learners did not feel confident to confront an audience which contributed to their fear of negative evaluation. The learners felt more anxious when they perceived their own speaking ability negatively. They assessed their ability as lower than their classmates and native speakers of English.

In conclusion, past studies have found that learning an L2 means experiencing a high level of anxiety as a result of the discrepancy between cognitive ability and linguistic skills (MacIntyre & Gardner, 1989). Consequently, the learners' speaking anxiety inhibits their performance in oral interaction tasks that consequently make them unwilling to engage in oral tasks. The next section introduces the concept of mobile-assisted language learning as the learning approach aiming to enhance oral communication skills.

2.3 Mobile-assisted language learning

As noted in section 1.8, mobile-assisted language learning (MALL) is defined as using mobile technologies for language learning (Kukulska-Hulme, 2013a). MALL is a branch of computer-assisted language learning (CALL) but "differs from CALL in its use of personal, portable devices that enable new ways of learning emphasising continuity or spontaneity of access and interaction across different contexts of use" (Kukulska-Hulme & Shield, 2008, p. 273). Mobile technology is relatively more affordable than more traditional technology for CALL, offering spontaneous and personal access to the educational resources of the Internet (Kukulska-Hulme, 2005). Furthermore, MALL is "a specialisation of mobile learning" (Viberg & Gronlund, 2012) that offers much educational potential for authentic, context-aware, inquiry-based learning in locations beyond the classroom (Pearson, 2011) due to the physical nature of the technology.

Rapid advancement in information and communication technology (ICT) has resulted in a wide range of mobile technologies which "are rapidly attracting new users, providing increasing capacity and allowing more sophisticated use" (Viberg & Gronlund, 2012, p. 1). As a consequence, society has readily accepted mobile technology and integrated it into their lives (Ally, 2007). Mobile technology offers a feasible tool as an extension of existing learning tools being superior to computers in portability, social interactivity, connectivity, individuality and immediacy (Y.-M. Huang, Kuo, Lin, & Cheng, 2008; Hwang, Yang, Tsai, & Yang, 2009). Learners, as the end users of

knowledge, have experienced the developing educational trend; and past research has demonstrated how language teachers became attracted to integrate mobile technology into language learning. The integration of mobile technologies is to support the learning process and the nature of mobile technology reflects mobility, portability, and personalized learning (Naismith et al., 2004; Begum, 2011). The introduction of mobile technology for learning has given rise to the term 'mobile learning', which is often abbreviated to 'm-learning'.

There are multiple definitions of m-learning given by researchers in m-learning. Sharples et al. (2007) define m-learning as a process of seeking knowledge through conversations across multiple contexts among people and personal interactive technologies. Brown (2005) defines m-learning as an extension of e-learning and accomplishing the learning using small and portable devices (Ismail, I., Gunasegaran, T., Koh, P. P., & M. Idrus, R.). M-learning happens without requiring the learner to be at a fixed, predetermined location and expecting the learners to take "advantages of the learning opportunities offered by mobile technologies" (O'Malley et al., 2003); thus offering new learning experiences and flexibility in learning. It is possible that integrating mobile technology into learning encourages engagement and collaboration among learners as well as between language instructors and learners.

The definition of mobile learning is

> ..learning that can take place anytime, anywhere with the help of a mobile computer device. The device must be capable of presenting learning content and providing wireless two-way communication between teacher(s) and student(s). (Dye, Solstad, & K'Odingo, 2003, p. Abstract)

In addition, the representation of m-learning by Dye et al. (2003) is shown in Figure 2-1.
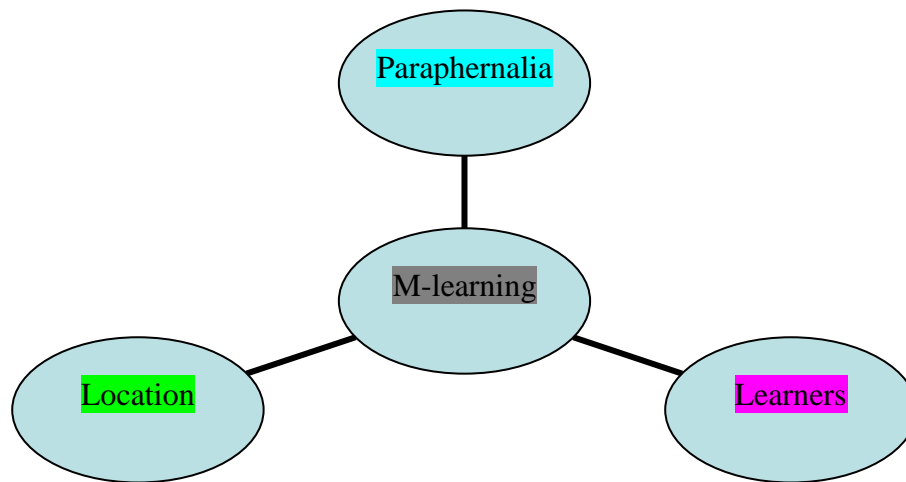
Figure 2-1. Diagram of m-learning through paraphernalia, location and learners
Note: Reprinted from Mobile education – A glance at the future, by Dye, A., Solstad, B. E., &
K'Odingo, J. A., 2014. Retrieved from
http://www.dye.no/articles/a_glance_at_the_future/index.html

Figure 2-1 illustrates the essential elements for m-leaning which includes the tools or technology (paraphernalia), the spatial dimension (location) and the participants (learners). Sharples, Arnedillo-Sanchez, Milrad, and Vavoula (2009) identify "m-learning that facilitates learners by augmenting personal and public technology through places and spaces to gain novel information and skills" (p. 235). More often mobile technology is personal which is usually not shared with others and is kept close to the owner.

2.3.1 Readiness for using mobile phones

The statistics on hand phone users among Malaysians in 2012 found that the highest users aged between 20 – 24 (17.3%), representing 10% of the population, and the next highest users were aged between 25 – 29 (15.8%), representing 9.8% of the population (Malaysian Communications and Multimedia Commission, 2012b). The spread of ownership of mobile phones in Malaysia reflects the perceived necessity of the mobile phone to individuals instead of the technology being a luxury item. Concurrently, the widespread availability of Wi-fi or 3G enables convenient access to the Internet to individual; hence, the mobile phone is regarded as highly useful. This explains why MALL is one of the disciplines that is most likely to benefit from the widespread ownership of mobile devices such as phones and media players (Kukulska-Hulme, 2006).

Past research studies have looked at learners' perceptions and their acceptance towards m-learning. In the initial stage of the introduction of m-learning, these assessments are crucial to language teachers and others concerned with the use of mobile learning (Corbeil & Valdes-Corbeil, 2007; Keller, 2011) because they provide information from the perspectives of learners about incorporating mobile technology as an additional learning medium (Abas, Chng, & Mansor, 2009). There is a range of mobile devices to choose appropriate for various learning purposes but they are only tools to enhance the learning process (Hussin, Manap, Amir, & Krish, 2012). The choice of a particular mobile technology is not as important as making the learning experience compelling and the results highly interactive through effective use of the technology (Hussin et al., 2012; Wagner, 2005). In addition, the success of mobile learning will depend on human factors related to the use of the new mobile and wireless technologies (Hussin et al., 2012).

In the context of Malaysian higher education institutions (HEIs), a number of studies on readiness of learners towards the implementation of m-learning have been carried out. This includes studies with on-campus learners and distance learners. A study on the readiness for m-learning of undergraduate and postgraduate learners from two public universities in Malaysia revealed that 100% of the learners owned a mobile phone. (Hussin et al., 2012). The basic functions on their mobile phones were the 3G service (68%), multimedia message (88%) and the internet access (76%) which further confirmed that the mobile phones owned by the learners met the basic requirements for them to engage in m-learning. However, only 10% of them usually accessed the Internet indicating that these learners used the post-paid service that includes call credit and data. Other learners used the pre-paid service that restricted them from accessing the Internet unless they were in the Wi-Fi vicinity. The learners indicated their familiarity with the basic skills of using mobile phones including e-mailing, downloading files and reading online. 75% of the learners were aware of m-learning and were positive about what m-learning could offer including saving learning time and engaging in learning. About 50% of them indicated their readiness to allocate extra costs incurred with m-learning including a rise in phone bills at that time but more learners would be more prepared for the allocation in future. In general, the undergraduate and postgraduate learners were prepared with m-learning but were not quite ready regarding the financial implications.

A preliminary study on m-learning with undergraduate learners of Universiti Malaysia Sabah, East Malaysia found that 60% of the learners owned either a tablet or smart phone with Wi-Fi access capability (Choon-Keong, Ing, & Kean-Wah, 2013). In addition, the learners viewed m-learning as beneficial and useful including for managing their time (86.26%), giving more attention to learning (85.83%), motivation in learning (43%), improving learners'

productivity (86%), completing assignments faster (84%) and being helpful to learning in the course (87%). The learners mentioned improvement in productivity as m- learning allowed retrieval of extra information through links given by course lecturers or through the help of online search engines such as Google. From the interview, one learner confirmed that m-learning had facilitated her learning, enabling her to work quickly and more productively. Another learner mentioned m-learning helped her to keep in touch with friends in distant places as well as making her learning meaningful through discussions.

Adult distance learners from 31 learning centres of the Open University Malaysia owned at least one mobile phone (99%) and the majority used the prepaid service (Abas et al., 2009). In addition, 66% expressed willingness to purchase a new mobile device since they realised the benefits of m-learning, 43% agreed that m-learning would better assist them in managing time, 43% were interested in learning and 50% believed m-learning would make learning more flexible.

Undergraduate distance learners of Universiti Sains Malaysia expressed their satisfaction with m-learning approach they experienced which helped them to refresh on certain subjects and resolve doubts (Issham et al., 2010). The short messages service (SMS) used for communication was brief and powerful and convenient. They also agreed that m-learning helped them pace their studies. However, the learners were not satisfied with the cost incurred for the SMS involved.

For the implementation of m-learning, researchers were also keen to find out the readiness towards m-learning between different course disciplines namely science and social science disciplines (Arif, Yazi, Radzi, Hussin, & Embi, 2013). The four domains of readiness measured were basic physical readiness, skill readiness, psychological readiness, and mobile language learning readiness. The findings showed a significant difference on physical readiness between science and social science background learners when the science background learners showed greater readiness for mobile learning than those learners from the social science background. This further suggests that learners with a science background were more eager to explore new mobile technology. It was assumed the possible influence of peers, teachers, and surroundings on the results. In relation to skill readiness, learners from the science background learners have greater ability to make full use of mobile devices (such as smart phones) to access the Internet and reading materials than the learners from the social science background learners. However, there was no significant difference between the two disciplines on psychological readiness suggesting that the undergraduate learners were already prepared with, and have accepted the existence of, the technology. In conclusion, in respect to the mobile language learning readiness, the study found that

Malaysian learners at the higher education institution have accepted the technology for teaching and learning at higher education institutions.

2.3.2 Mobile technology - Mobile phones

The earlier designs of mobile phones (depending on context also known as cell phones, hand phones or cellular phones) were bulky and heavy used to make and receive calls only. With the development in technology mobile phones have become smaller in size and lighter in weight representing increased portability. Moreover, the upgraded features on mobile phones now include Internet-access capability, voice-messaging, short message service text messaging, photographs, and audio/video recording (Chinnery, 2006; Levy, 2009) besides the communicative and computational capabilities allowing responses to user requests for connecting people or for managing personal information (Chao & Chen, 2009).

More recent models are known as smart phones built with many features like computers. One of the features enables communicative language practice for language learning and gives access to authentic content and task completion (Chinnery, 2006). Smart phones allow browsing of the World Wide Web and downloading of content (G. Cui & Wang, 2008) appropriate for their wide screen, in addition to free or inexpensive applications for smart phones (Kukulska-Hulme et al., 2011). Therefore, mobile technology is believed to be able to extend learning opportunities in a meaningful way (Thornton & Houser, 2005) as determined by learners before engaging in actvities that motivate their personal learning needs and circumstances of use (Kukulska-Hulme, Traxler, & Pettit, 2007; Pettit & Kukulska-Hulme, 2007).

Past studies on mobile phones used in various aspects of language learning support the hypothesis that mobile phones are useful to enhance L2 learning. Nevertheless, it is unanimously agreed that the mobile phones as new learning tools are not to replace teachers or to replace the existing technology for learning (Kukulska-Hulme, 2009); instead they are introduced to complement and support the current technologies for use in the learning process (Prensky, 2005). Among the benefits of using technologies in learning are effectiveness to deliver language learning materials (Thornton & Houser, 2005) and enable learning collaboration to achieve learning goals (Pena-Bandalaria, 2007).

Very few studies have considered the possibility of using mobile phones as a language learning tool (Gromik & Anderson, 2010). Among the studies to improve different language skills by integrating mobile phones are reading skills (Bahrani, 2011a; Chang & Hsu, 2011; Chao & Chen, 2009; Tsutsui, Owada, Ueda, & Nakano, 2012); listening skills (Stockwell, 2013b; Yamada et al., 2011); but none for writing skills. Other past studies focused on English

for specific purposes, for instance, English for tourism (Hsu, 2012), idioms (Hayati, Jalilifar, & Mashhadi, 2013; Thornton & Houser, 2004), grammar (Ally, McGreal, Schafer, Tin, & Cheung, 2007; Gabarre & Gabarre, 2010; Kennedy & Levy, 2008) and prepositions (Begum, 2011). A summary of studies is presented in Table 2-2. The following section will review previous studies in relation to speaking skills and vocabulary learning as these are the language skills and language areas associated with oral interaction skills.

The past studies have successfully assessed mobile technology leveraged in supporting learning opportunities. Moreover, mobile technology has started to play an important role in the daily lives of learners; and using mobile phones as learning devices offers anywhere and anytime access (Burston, 2011). As a result, many dynamic approaches have integrated mobile phones to facilitate language learning.

Table 2-2
Summary of studies on learning using mobile phones

Year	Author	Instructional settings/ participants	Nationality of learners	Research design	Language skills / component
2013	Geng, G.	Tertiary		Mixed methods	General learning
	Hayati et al	Tertiary	Persian	Quantitative	Listening, speaking
	Stockwell, G.	Tertiary	Japanese	Quantitative	Vocabulary
2012	Gromik, N.	Tertiary	Japanese	Mixed methods	Speaking
	Santos & Ali	Tertiary	Arabic	Mixed methods	Informal learning
	Saran et al	Tertiary	Turkish	Quantitative	Vocabulary
	Tabatabaei & Goojani	Tertiary	Iranian	Quantitative	Vocabulary
	Taleb & Sohrabi	Tertiary	Tehran	Quantitative	General learning
2011	Begum, R	Tertiary	Bangladeshi	Mixed methods	General learning
	Bradley & Holley	Tertiary	Various	Mixed methods	General learning
	Gabarre et al.	Tertiary	Malaysians	Mixed methods	Speaking
	Gromik, N.	Tertiary	Japanese	Mixed methods	Speaking

Year	Author	Instructional settings/ participants	Nationality of learners	Research design	Language skills / component
	Hsu & Lee	Employees	Taiwanese	Quantitative	English for specific purpose
	Huang & Lin	Secondary school	Taiwanese	Mixed methods	Reading
	Pearson, L.	Migrants	Bangladeshi	Mixed methods	General learning
	Sandberg et al.	Primary school	Dutch	Quantitative	Reading and writing
	Taki & Khazaei	Tertiary	Persian	Quantitative	Vocabulary
	Yamada et al.	Employees	Japanese	Mixed methods	Listening
	Zhang et al	Tertiary	Chinese	Quantitative	Vocabulary
2010	Basoglu & Akdemir	Tertiary	Turkish	Mixed methods	Vocabulary
	Gabarre et al.	Tertiary	Malaysians	Quantitative	Speaking
	Gromik & Anderson	Tertiary	Japanese	Quantitative	Speaking
	Stockwell, G.	Tertiary	Japanese	Quantitative	Vocabulary
2009	Cavus & Ibrahim	Tertiary	Turkish	Quantitative	Vocabulary
	Chao & Chen	Tertiary	Chinese	Mixed methods	Reading

Year	Author	Instructional settings/ participants	Nationality of learners	Research design	Language skills / component
	Gromik, N	Tertiary	Japanese	Mixed methods	Speaking

2.3.3 Mobile phones and language learning

The sense of personal belonging as well as the 'closeness' of mobile phones to learners have attracted earlier researchers to study the potential of mobile phones in education in general and to support language learning specifically. The past empirical studies discussed in this section will provide baseline information on the use of mobile phones for language learning. There has been gradual movement toward integrating mobile technologies into teaching and learning as educators attempted to understand how the technologies can be used effectively to support various kinds of learning (Kukulska-Hulme & Shield, 2008).

2.3.3.1 Vocabulary

L2 learning includes learning vocabulary of the target language. Vocabulary refers to basic units of words forming strings in sentences to be used in reading, writing, listening and speaking discourse. It is important for language learners to have a grasp of vocabulary in order to be able to function competently in the target language. Similar to learning the language skills of the target language, learning English language vocabulary for non-native speakers is still a great challenge. Non-native speakers of English language persistently raise the issue of their limited vocabulary knowledge hindering them from interacting verbally in the target language as discussed in section 1.0.0. Thus, language educators have attempted various functions of mobile phones in teaching vocabulary aiming to increase the vocabulary knowledge of learners.

One of the approaches, in line with the growth of technologies, is the study of the pedagogical use of mobile phones for vocabulary learning. The different features on mobile phones that have been explored include Microsoft Tag technology (Agca & Ozdemir, 2013), SMS (Cavus & Ibrahim, 2009; Tabatabaei & Goojani, 2012; Taki & Khazaei, 2011; H. Zhang, Song, & Burston, 2011), email (Li et al., 2010) and pre-designed vocabulary programmes (Başoğlu & Akdemır, 2010; Stockwell, 2010).

Learners using vocabulary learning programs on mobile phones to learn vocabulary has demonstrated an achievement in learning English vocabulary (Başoğlu & Akdemır, 2010). Half of the undergraduate learners in Turkey owned mobile phones that were compatible with the vocabulary learning program were assigned to the experimental group. They were expected to use the vocabulary program on in their extracurricular times. In the meantime, the other half of the learners were assigned as the control group and were given the vocabulary flashcards and leant through the traditional vocabulary learning technique on paper for six weeks besides being restricted from interacting with

the vocabulary acquisition program on the mobile phones. The post-test scores of the experimental group on their English vocabulary acquisition were significantly higher than pre-test scores. The learners explained that they used the vocabulary learning program on their mobile phones outside the school that enabled their active participation on the vocabulary learning program. At the same time, post-test scores of the control group was statistically higher than the pre-test scores. The finding shows that the extracurricular activity used for the control group has helped them to improve their vocabulary learning. The gain scores were calculated for the experimental and control groups, and the mean score of the experimental group was statistically significantly higher than the mean score of the control group. This finding indicates that using vocabulary learning programs on mobile phones to learn vocabulary proved greater achievement than using vocabulary flashcards.

A similar comparative study explored the effectiveness of vocabulary learning using mobile phone SMS text with a list of vocabulary on paper material (H. Zhang et al., 2011). The pre-test identified no significant difference between the two groups indicating that the learners from both groups had similar vocabulary knowledge. The experimental group received the SMS of five items at a time on their mobile phones whilst the control group was given sheets of paper at the beginning of the study. These different treatments lasted for three weeks and the post-test revealed that the experimental group did significantly perform better than the control group. However, based on the delayed test administered in the fifth week, the results revealed a higher retention rate from the experimental group than the control group even though the difference in performance between the two groups was not significant. The comparison revealed more vocabulary gains using the mobile phone to learn vocabulary that supported the effectiveness than learning on paper. The study concluded that vocabulary learning through these two methods was effective in their own way and that a blended approach to vocabulary learning may better help increase the effectiveness from the perspective of sustained retention rates.

In some cases, the use of mobile devices was integrated with computer use to create learners' vocabulary learning activities. Four learners from the University of Gazi were separated into two groups randomly and used printed course book, online learning material and Microsoft Tag technology together as to support vocabulary learning in the ,-learning environment (Agca & Ozdemir, 2013). Learners scanned the Microsoft Tags (2D barcodes) placed on the pages with mobile phones which then displayed the definitions of words and associated images. The pre-test and post-test of the vocabulary showed a significant difference on the increase of learners' vocabulary knowledge. The factors that contributed to the effectiveness of the vocabulary learning using mobile phones were the presentation of the definitions, examples of sentences using the words, repetitions of the words between

intervals of time encouraging memory retention, images of the words followed by instant feedback via mobile phones by the learners. These factors were supported by the learners who agreed that the m-learning environment was an innovative application which had created curiosity and had attracted them to learn vocabulary.

A number of learning strategies have been developed to cater to different learning problems of individuals. Learners perceive that vocabulary learning using mobile phones is effective as they have been able to retain in memory words that were associated with the relevant images (Agca & Ozdemir, 2013; Başoğlu & Akdemır, 2010). Two learning strategies adopted by Persian learners studying English language at an Iranian English institute were pictorial and written cues of new words using mobile phones (Taki & Khazaei, 2011). The learners were divided into four groups – higher visual and verbal abilities, higher visual but lower verbal abilities, both lower visual and verbal abilities and finally lower visual but higher verbal abilities. The learners were then tested on 20 visual items and 20 verbal items that revealed vocabulary learning had improved for learners with high visual but low verbal abilities after presenting pictorial annotations as well as for learners with both low visual and low verbal abilities after presenting written annotations.

A similar study investigated the efficacy of multimodal representation of L2 vocabularies demonstrated learners with high-verbal and high-visual ability learned the materials with pictorial or written annotations better (Taki & Khazaei, 2011). The pre-intermediate level L2 learners in Iran took a short term memory ability test with visual followed by verbal items before dividing them into the four different short-term memory ability groups. Next, they were assigned a mobile phone to learn 18 new English vocabulary items and each item was presented for about 120 seconds. For each word item, there were three types of representation namely Type 1 represented the English word, pronunciation, part of speech, and the Persian meaning of the word, Type 2 represented the materials shown in type 1 plus the written annotation (i.e. the example sentence with the item), Type 3 represented the materials shown in type 1 plus the pictorial annotation, and finally the mobile phone-based vocabulary presentations with different annotations, for example, pictorial vs. written, adapted to the mobile phone screen to render on learners' mobile phones via Bluetooth. The four groups were Group 1: learners with higher visual and verbal abilities; Group 2: learners with higher visual but lower verbal abilities; Group 3: learners with both lower visual and lower verbal abilities; and Group 4: learners with lower visual but higher verbal abilities. The study revealed higher recognition scores than the learners' recall scores which to some extent could be attributed to the role of learners' visual and verbal abilities. The study supported the idea that presenting the learning materials with annotation could inhibit better learning process and learning is more effective when learners use more than one sensory modality, for

instance, verbal and visual processing together and when connections are clearly made between information in each modality (Mayer, 2003). On the other hand, the learners with both low-visual and low-verbal abilities did not benefit much from learning materials with pictorial or written annotation. The result of the study discovered that the learners with good visual ability and low verbal ability performed well on recognition tests but they did not perform well on recall tests. Likewise, the same result is true for the learners with high verbal and low visual ability and learning materials with written annotation.

English language learners expressed positive attitudes toward the application of SMS to learn vocabulary (Cavus & Ibrahim, 2009; Tabatabaei & Goojani, 2012). A study found a significant low success rates before using the m-learning tool system than after using the system (Cavus & Ibrahim, 2009). The learners commented the joy of using the m-learning tool system that brought greater flexibility into their learning and gave them more motivation since they could learn anywhere anytime. It is believed that the interest of learners in the use of mobile phones also helped them in learning new words. Finally, they also preferred to receive university notices, exam dates, exam results and other academic information in their mobile phones.

The use of mobile phones appeared to be not popular when a significant number of learners chose the personal computer to complete listening activities (Stockwell, 2010). The first year Japanese learners of English language were required to study vocabulary outside of class hours where the vocabulary activities adapted from the textbook materials were developed and made available on personal computer or mobile phones for learners to access. The learners could choose which platform to use to do the activities. The scores achieved on both platforms were similar but the activities took longer to complete on mobile phones than the personal computers. In terms of the progress of the vocabulary learning, the mean scores achieved on both platforms were not significantly different as some lessons achieved high scores on the personal computers and some achieved high scores on the mobile phones.

Another study on SMS in L2 vocabulary lessons in Taiwan found more gains in vocabulary recognition using mobile phone than their paper group counterparts.(Lu, 2008). The English language learners were randomly distributed into two groups – the first group received a set of English words on paper and the second group received the same English words in the first week. The two groups switched the modes of instruction on the second week. The post-treatment vocabulary tests showed higher test scores and vocabulary gains regardless of the medium. Comparing between the media, the learners demonstrated the convenience and interest on learning vocabulary on mobile phone. The learners viewed memorization of vocabulary in SMS lessons was easier than on paper which they preferred.

To summarise, the discussion above has illustrated the use of mobile phones to facilitate contextual learning by allowing availability of information in the learner's location and relevant to the learner's needs, an affordance for information to be captured or delivered in context (Kukulska-Hulme, 2006) resulting in an increase in vocabulary knowledge. The provisions are beneficial to enhance continuity and spontaneity of access to information and interaction across different contexts. Mobile-assisted vocabulary learning enables learners to retain new words, though it is believed that meaningful vocabulary learning occurs when the learning process is integrated with social, cultural and life context (Chih-Ming Chen & Li, 2010).

2.3.3.2 Speaking

Developing oral interaction skills using mobile phones has not attracted many educators (Kukulska-Hulme, 2006) despite the known affordance of the technology. Prior to 2008 there was only one study on speaking skills (Cooney & Keogh, 2007). Many previous studies required learners to read from the screen of mobile phones particularly for vocabulary learning.

Seven Japanese advanced English as a foreign language learners realised the feasibility of integrating mobile phone video diary recording devices in the language learning classroom (Gromik, 2009). The learners were assigned to produce mobile phone video diaries that aimed at engaging learners to speak spontaneously. The first in-class topic required them to provide a visual self-introduction and an explanation of their project. They were then guided through the process of uploading their mobile phone video diaries on blip.tv, a free video storing site. From week 4 to week 13, individual learners started producing their mobile phone video, presented and discussed it with the teacher and friends in the class and were given time to improve the production. Through discussion the learners expressed their interpretation of the project that encouraged authentic communication amongst them. The learners were seen to have interacted with their peers to scaffold the completion of their project. After the completion and presentation of the final video diaries, they complained about the pre-set time that was a challenge for them to express their opinions but the teacher was on the opinion that the time was to incite them to improve their control of the target language.

Subsequent to the preliminary research, Gromik and Anderson (2010) carried out an action research exploring the possibility of integrating mobile phones and proposed independent learning augmented with mobile phones in order to gain benefits from utilise the technology. The 14-week research engaged second year Japanese undergraduate learners to produce a 30-second mobile phone-based video recording once a week over the course of the term on the topic covered in class. It was a communicative task set within a syllabus that intended to engage learners to rely on their prior knowledge of the target

language to improve their verbal performance. The learners were given full control over the design of their content and video production without assistance with grammatical or linguistics features or matters regarding the production of the videos. The learners were required to produce the first mobile phone video before the researcher assisted on the technical problems in doing the task. Then, the learners came up with the final productions to be collected on the final week. The videos indicated consistent practice in expressing the learners' opinion in the target language and their ability to view and improve their performances. Further into the research, sixteen learners were invited to deliver an impromptu speech in front of the video camera to ascertain the benefits of learning using mobile phone-based. The results were then compared with the earlier mobile phone-based video productions on the words uttered per second. The words spoken per second showed a decrease in the impromptu speech since the learners were not allowed to write their speech and this is believed to have affected their abilities to keep track of their speech. Some benefits from using this technology expressed by the learners included an opportunity to practise speaking, thinking and improving their linguistic performance in the target language. The majority of the learners wrote their ideas before speaking which is believed to have helped increase the learners' exposure to writing strategies. The research proves that practice empowered the learners to improve their speaking ability. The learners reviewed, evaluated and improved any aspects of their communicative performance before selecting and sending their best video performance.

The use of mobile phone video recording feature was found to be a useful activity that acted as a catalyst for learning anytime anywhere and learners gained a positive learning outcome from producing the weekly mobile phone videos (Gromik, 2012). In a 14-week communicative English course, the Japanese learners learning English language were required to produce one 30-second audio-visual video on a weekly basis on a topic selected by the teacher. They were only allowed to use the video recording feature on their cell phones. The analysis of the weekly video performances indicated that the learners were able to increase the number of words they spoke in one monologue besides 46% improvement in word production and 37% increase in words uttered per second. Seven learners agreed that creating a weekly cell phone video enabled them to improve their speaking speed and they became aware of the skills and strategies required to speak more words within the time allocated. As disclosed in the interviews, the learners who needed more than six attempts to create video usually experienced difficulties in expressing their opinions about a particular prompt such as vocabulary recollection, pronunciation satisfaction and visual presentation. The learners viewed the concept of learning with the mobile phone interesting and innovative whilst agreeing on its convenience.

English is the first language of the vast majority of Irish people and Irish is the L2 and this has become the concern of the nation when a great number of Irish learners seem to have lack of enthusiasm towards the Irish language which leads to the cessation of conversational Irish amongst young people. Due to the concern raised about Irish learners who had less than satisfactory Irish language proficiency upon completion of high school, a pilot project took place in a rural school on 69 second year learners aged between 14 and 15 with three Irish teachers using text messaging on mobile phones as an attempt to extend the Irish vocabulary of the learners. (Cooney & Keogh, 2007). The learners were required to incorporate the word or phrase into their Irish conversations during their school day as well as in their weekly text-based web chat. 67% of the Irish learners made progress in speaking Irish when they made progress in comprehension, competence, grammar and vocabulary. The 'new age' technology proved to break down barriers to learners' learning and speaking of Irish and able to reduce the amount of pressure in communicating. The learners regarded the integrated technologies as a positive move from more traditional methods of learning Irish. At the same time, the use of mobile phone enhanced autonomous learning as the technologies facilitated learning at any time, in any place and at the students' own pace.

As a conclusion, the past studies have demonstrated the integration of mobile phone to enhance the language learning process. MALL is still at an early stage of integration but features on mobile phones for language learning purposes have potential to be explored further. In selecting the suitable and appropriate technology, teachers' selections should be based on their familiarity with the technological options available and the suitability of these technological options to particular learning goals (Stockwell, 2007).

2.4 Conceptual framework of mobile language learning

This study explored the effectiveness of integrating mobile phones to alleviate language anxiety and to enhance oral interaction skills. It offered learning experiences by engaging the learners on broad uses of mobile phones. The engagement of learners with the personal technology increases their ownership and responsibility over their learning needs. To reiterate, this study addresses the relationship between language anxiety and oral interaction skills and introduced the use of mobile phones as a learning tool to solve both issues of language learning (see Figure 2-2).
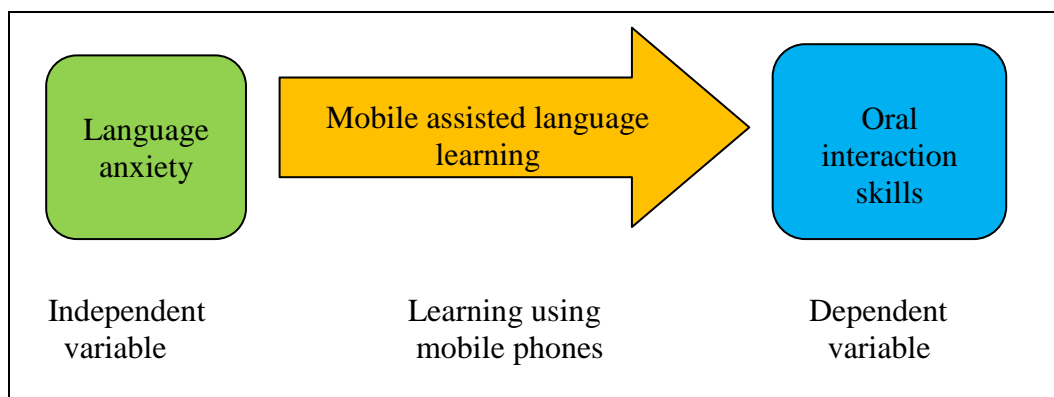
Figure 2-2. *The framework of the study*

2.5 Chapter summary

Past research discussed in this chapter has dealt with issues of oral interaction skills encountered by L2 learners of English language, then the relationship between language anxiety and language achievement. In addition, studies on the integration of mobile phones in language learning contexts have provided some benefits to increase the learners' confidence in using the language and to improve in language learning. Thus, there is a need to find out more about the learners' perspectives on this integration and investigate the effectiveness of integrating mobile phones to alleviate language anxiety in order to enhance oral interaction skills.

CHAPTER 3: RESEARCH METHODOLOGY

Research is creating new knowledge – Neil Armstrong

This chapter explicates the research design and methods employed for data collection and data analysis in the study. The chapter is categorized into six sections. The first section (3.1) justifies the research design approach; the second section (3.2) explains the research context; the third section (3.3) elaborates on the research participants; the fourth section (3.4) explains the administration of the data collection matters for the study; the fifth section (3.5) substantiates the data analysis procedures; and finally the sixth section (3.6) justifies the triangulation of data for the purpose of discussion.

3.1 Research design

A research approach encompasses "the plan or proposal to conduct research, involves the intersection of philosophy, research designs, and specific methods" (Creswell, 2014, p. 5). Furthermore, the research plan takes into account developing a design outlining a detailed description of the proposed study in order to investigate a research problem (Gay, Mills, & Airasian, 2006). The research approach is illustrated in Figure 3-1.
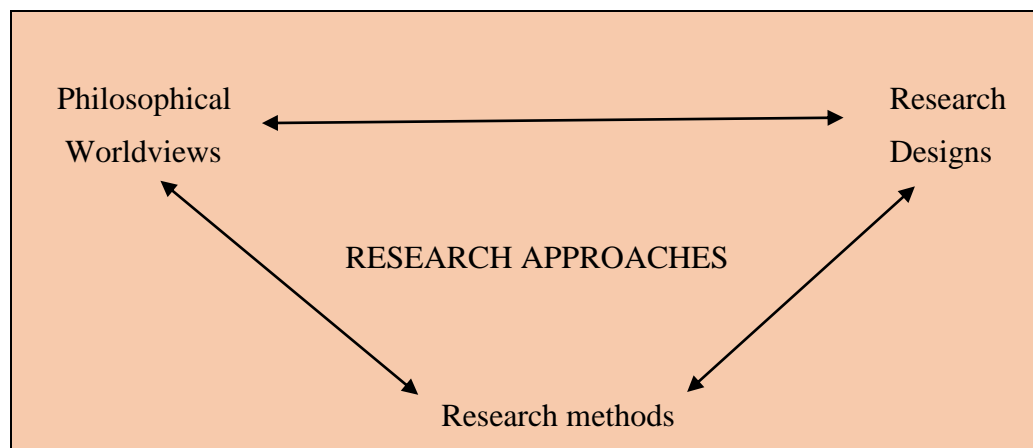
Figure 3-1. A framework for research
Note: Reprinted from Research Design (p. 5), by Creswell, J. W., 2014, California: SAGE.

The first agenda is deciding on the philosophical worldviews. The term 'worldview' means "a basic set of beliefs that guide an action" (Guba, 1990, p. 17) and "a set of beliefs, values and assumptions" (Johnson & Onwuegbuzie, 2004, p. 24). Other names for aspects of a worldview include paradigms

(Lincoln & Guba, 2000; Mertens, 1998) as well as epistemologies and ontologies (Crotty, 1998). The rationale for deciding on the worldview is that it will influence the practice of research as well as help explain the choice of the research methods for a research study. The four worldviews commonly discussed are "postpositivism, constructivism, transformative, and pragmatism" (Creswell, 2014). In regards to the philosophical worldview, this study adopts the pragmatic worldview that believes in actions, situations, and consequences (Creswell, 2014) by perceiving and experiencing the world (Morgan, 2007). In the pragmatist view, knowledge "is always about the relationships between actions and consequences" (Biesta, 2010, p. 112); hence, by focussing on the research problem of the current study, the researcher utilises multiple approaches for the data collection process in order to understand the research problem (Creswell, 2014; Patton, 1990) and assess the effects.

The second agenda in a research framework is deciding the research design appropriate for the specific research study. The three common designs are qualitative, quantitative and mixed methods (Creswell, 2014). The different names distinguish the types of inquiry within each of them. For example, qualitative refers to research using words, quantitative refers to research using numbers and finally mixed methods research incorporates both qualitative and quantitative approaches (Creswell, 2009) providing specific directions for procedures (Creswell, 2014).

Table 3-1 Alternative Research Designs

Quantitative	Qualitative	Mixed methods
▪ Experimental designs ▪ Nonexperimental designs	▪ Narrative research ▪ Phenomenology ▪ Grounded theory ▪ Ethnographies ▪ Case study	▪ Convergent ▪ Explanatory sequential ▪ Exploratory sequential ▪ Transformative

Note: Reprinted from Research Design (p. 12), by Creswell, J. W., 2014, California: SAGE

The research design appropriate for this study with reference to the research problems highlighted in Section 1.4 is mixed methods design. Mixed methods design was not as well-known as quantitative or qualitative approaches but it was introduced in 1959 by Campbell and Fisk, who studied validity of

psychological traits and then encouraged other researchers to employ the strategies to examine various approaches to data collection (Creswell, 2009). One of their arguments was that every method has limitations; nevertheless, any biases in one method could neutralise or overdraw the biases of other methods (Creswell, 2009). As a consequence, the early researchers developed different types of inquiry for mixed methods design and are summarised in Table 3-1 – convergent, explanatory, exploratory, and transformative. Despite the different types of inquiry, the common element when employing mixed methods design is to include multiple forms of data, statistical and text analysis as well as interpretation across databases (Creswell, 2009).

Over the years, the concept of mixed methods research has been defined in a number of ways. Mixed methods research is defined by Johnson and Onwuegbuzie (2004) as "the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concepts or language in a single study (p. 15). According to Punch (as cited in Shumin, 2002) we "cannot find out everything we might want to know using only one approach, and we can often increase the scope, depth and power of research by combining the two approaches" (p. 243). Similarly, a mixed methods study "involves the collection or analysis of both qualitative and quantitative data in a single study with some attempts to integrate the two approaches at one or more stages of the research process" (Dornyei, 2007, p. 163). To summarise these definitions, the central premise of mixed methods research design combines or integrates qualitative and quantitative research, as well as qualitative data (open-ended without predetermined responses) and quantitative data (closed-ended responses) in a research study (Creswell, 2014).

There are four basic mixed methods designs namely, "the convergent parallel design, the explanatory sequential design, the exploratory sequential design, and the embedded design" (Creswell & Plano-Clark, 2011, p. 69). The most appealing design for this study is the explanatory sequential mixed methods approach where the quantitative data type is the basis and is followed up with the qualitative data to provide a supportive, secondary role before interpreting the data. However, this study extended to another quantitative data collection and analysis after the second stage; thus, the extended explanatory sequential mixed methods was applied into this study as illustrated in Figure 3-2.

Figure 3-2. Extended Explanatory Sequential Mixed Methods Design
Note: Adapted from Research Design, (p. 220), by Creswell, J. W., 2014, California: SAGE

With reference to Figure 3-2, the capitalization, QUAN, is indicating priority given on the quantitative data in the study, as well as analysis and interpretation in the research study; whilst the lower case, qual, indicates the supplemental methods in the study. The data from both approaches – quantitative and qualitative - were collected throughout three phases.

Basically, there are three justifications to support the researcher's decision to employ mixed methods design. First, there would be inadequacy of answers to the research questions if the source of data was solely the quantitative or the qualitative approach (Creswell, 2009). For instance, for research question 1 on page 13, quantitative results would be less meaningful without the qualitative follow-up data. Second, each research question requires different types of data and there is a possibility that the researcher "cannot find out everything we might want to know using only one approach, and we can often increase the scope, depth and power of research by combining the two approaches" (Shumin, 2002, p. 243). For instance, for research question 2, the difference between the pre- and post-test data would be better understood with the responses gathered from the focus group interview. Thirdly, combining the two approaches will utilize the strengths of both and minimize the weaknesses

of any of these approaches (Klassen, Creswell, Plano Clark, Smith, & Meissner, 2012). In other words, combining both quantitative and qualitative approaches helps achieve a complete understanding of the research problem of a study. Ultimately, gathering diverse types of data and using them as complementary to each other ensures better understanding of the research problem (Creswell, 2009).

The final agenda the researcher needs to decide is the research methods for data collection, data analysis and interpretation of results for the study (Creswell, 2014). This is further discussed in Section 3.4 and Section 3.5. To sum up, a research approach is a thorough and comprehensive process requiring a researcher to consider the three important elements – philosophical views, research design and research methods - which at the end should translate the approach into practice (Creswell, 2009).

3.2 Research contexts

The main research took place at a public university in Malaysia to which the researcher is attached as an academic staff member. The researcher began her teaching career at the university in 2006 and had been teaching various English language courses offered by the Proficiency Unit of the English Language Department. As explained in Section 1.2.3, the number of English language courses first year undergraduate learners need to enrol depends on their Malaysian University English Test (MUET) results. The English oral interaction course selected for this study was compulsory for learners who achieved MUET band 3 and band 4 as well as the learners who have passed the English for Academic Purpose course.

Learning materials used for the English oral interaction courses included text books, course modules and lessons in the language laboratory. The proficiency unit subscribed to ELLIS Essentials program developed by Pearson Digital for English language learners to develop their language proficiency and literacy skills. The program is a computer-based program used as a supplement to the class core topics. The program covers all areas in language learning including reading, listening, speaking, writing and vocabulary. The program was installed in computers at the language laboratory of the faculty. Apart from attending in-class lessons each of the learners was required to attend an hour language laboratory every week to do the assigned ELLIS topic. Each of the learners needed to select the hour that he or she could be present for the laboratory program that would be fixed till the end of the semester.

The researcher noticed a number of problems with the ELLIS Essentials Program. The enrolment of the English oral interaction course would be between 600 – 1800 learners every semester. The number of language laboratories available at the faculty was 10 and each laboratory could accommodate 25 learners per session from Monday to Friday between 9am to 4pm. The main problem that came to the attention of the researcher was the location. The learners were from all the faculties on campus and they found it time consuming when they had to travel to the faculty for an additional hour a week to attend the laboratory activity. The learners should be doing the activity for one solid hour or beginning the activity later meant they were not able to complete the assigned weekly topics,.

Later in the year, the researcher observed the wide use of mobile phone among the learners. This had encouraged her to explore the potential of integrating mobile phone as a tool to learn language. The researcher decided to study a sample of learners who enrolled in the English oral interaction course. The course was offered every semester of the academic year which runs for 14 weeks. First year learners either in semester one or two would enrol for the course but there would be some learners from other academic years who had to repeat the course. The total number of learners who registered for the course in Semester 2, 2011-2012 was 1660. The course content was delivered in a face-to-face mode with each week made up of 3-hour in-class meetings with an instructor, and a 1-hour ELLIS Essentials program, which learners were to complete in a computer laboratory in their own time. The teaching was based on the course syllabus developed by a team of teachers from the proficiency unit, using a text book as the reference material as well as administering topical assessments.

Prior to the execution of the study, the researcher took necessary steps complying with the ethical rules and guidelines. First, the researcher applied for a research permit from the Economic Planning Unit, Prime Minister Office to conduct the research in Malaysia (see Appendix A). Secondly, an approval was sought from the site of the research by submitting a letter requesting to collect data from the public higher education institution (HEI). An approval letter from the Dean of faculty on the researcher's intention to do field work with the objective of gathering information from Malaysian English language learners was obtained (see Appendix B). Subsequently, the researcher sought approval from the Head of English language department and the Unit Coordinator of English Proficiency Unit, Department of English to teach and collect data on three groups of undergraduate learners in Semester 2, 2011 – 2012 and the Director, Centre for Academic Development of the university to access the server logs of the university. Before the semester commenced, the researcher was informed by the unit coordinator that the language teachers assigned to teach the English oral interaction course for the current semester were already notified of the researcher's intention to carry out the study on the

learners which could involve their learners. Finally, the researcher applied for approval from University of Southern Queensland Research Ethics Committee (Approval number H11REA169). The application was revised and later approved (see Appendix C).

3.3 Participants

3.3.1 The teacher-researcher

The researcher was the teacher-participant who taught the groups and collected data for the study for the research purpose. Although the course materials were common for every language teacher teaching the English oral interaction course, the intervention to be used in the study was not familiar to the researcher's colleagues that she decided to teach as well as collect data. In addition, the language teachers had common teaching hours either in the morning or afternoon sessions that made it difficult for the teacher-researcher to get assistance from her other teaching colleagues.

3.3.2 The teacher-participants

One of the teacher-participants was Mr. M who assisted in the instrument trial of the survey questionnaire. His role and how he conducted the instrument trial with his learners is explained in section 3.4.2.1. Other teacher-participants were the researcher's colleagues who also participated in the instrument trial when the survey questionnaire was trialled on the learning management system (LMS) of the university. Their assistance is elaborated in section 3.4.2.1. The last teacher-participant is the researcher's teaching colleague who co-assessed the course assessments to validate the course assessments' results. Her function is explained in detail in section 3.4.1.2.

3.3.3 The learner-participants

Different groups of learner-participants participated throughout the study. The first group of the learner-participants were from Mr. M's class who volunteered to respond to the survey questionnaire for the instrument trial. They tried out the pre-test questionnaire and discussed their problems in understanding the content of the questionnaire. The second group of the learner-participants were invited by the teacher-researcher to respond to the revised version of the survey questionnaire online. The different roles of both groups are explained further in Section 3.4.2.1.

The third group of the learner-participants were invited by the teacher-researcher to be interviewed during the instrumental trial of the semi-structured interview. They were enrolled in the English oral interaction course but were neither from the Treatment group nor the No Treatment group. The learner-participants had similar background to the learner-participants who participated in the main study. The explanation on the trial run of the interview questions is in Section 3.4.2.1.

The fourth group were the learner-participants who participated in the survey questionnaire for the pre-test. Finally, the fifth group were the learner-participants who participated in the main study. The involvement of both groups is further elaborated in Section 3.4.2.2.

3.4 Data collection matters

This section elaborates on quantitative and qualitative instruments utilised in the study, followed by the data collection procedures carried out for this study.

3.4.1 Research instruments

3.4.1.1 Online surveys

The main instrument used in this study was survey questionnaires, "written data elicitation devices" (Nunan & Bailey, 2009, p. 125). The broad goal of surveys in classroom research is to elicit, for example, ideas, attitudes, or opinions of subjects (Nunan & Bailey, 2009). Collecting data using surveys is challenging in the design to "capture the information researchers wish to elicit without unduly shaping the information" (Nunan & Bailey, 2009, p. 126), yet they are low cost, fast and efficient to reach a target audience and provide direct data entry.

For this research, the online surveys were prepared for both pre- and post-tests using the Qualtrics online tool. The subscription to this online tool was available through the Faculty of Education, University of Southern Queensland (USQ), Australia at the time of the study. Both survey questionnaires were prepared in English language assuming there was no significant possibility of the participants misunderstanding the language which was confirmed in the instrument trial.

The pre-test questionnaire (see Appendix D) has three main sections with 88 items including demographic details, English language classroom anxiety scale (ELCAS), ownership and readiness on the use of a mobile phone. The first section solicits demographic information of the learner-participants

namely, faculty, academic year, age, gender, nationality, ethnic groups, first language, English language experience and English language proficiency. Prior to the conduct of the research and after deciding to use the Foreign Language Classroom Anxiety Scale (FLCAS) developed by Horwitz, et al. (1986) as the main content of the survey, the researcher requested via email to one of the developers to adapt the scale. On 19 July 2011, the researcher was granted permission from the developer to adapt this scale for the research (see Appendix E). The second section in the survey questionnaire was adapted from the original version of the FLCAS (see Appendix F). In the original instrument the term "foreign language" was used and replaced with "English language" in the survey questionnaire to adapt to the target language. The second section listed the 33-items of ELCAS to determine the level of anxiety on three components - communicative apprehension, fear of negative evaluation and test anxiety. Each of the thirty-three items of the ELCAS was answered on a five-point Likert scale, ranging from "strongly disagree" (1) to "Neither agree nor disagree" (3) and to "strongly agree" (5). The 33-items include nine negatively worded statements (2, 5, 8, 11, 14, 18, 22, 28, and 32) where the responses were reversed and recoded for analysis. The third section focused on the participants' uses and readiness for the use of mobile phones. They were required to choose from the options given or write down their remarks.

The FLCAS has been extensively tested and widely used to investigate foreign language learning anxiety. Reliability and validity analyses were conducted on the ELCAS to assess the quality of the adapted scale for this study. Reliability is the degree to which measures are free from error and should yield consistent results. The internal consistency reliability achieved an alpha coefficient of .92 whilst the test-retest reliability over eight weeks yielded an alpha coefficient of .83.

The post-test survey questionnaire was divided into four sections but with fewer items of demographic information, education background and the use of mobile phone. The section on ELCAS was retained in the post-tests for both the Treatment group and No Treatment group to find out the levels of language anxiety at the end of the 14-weeks semester. Two additional sections on language learning experience and use of mobile phones were included in the post-test survey questionnaire for the Treatment group (see Appendix G) and the No Treatment group (see Appendix H). The administration of the post-test survey questionnaires is further explained in Section 3.4.2.2. The post-test was administered as to identify any differences in learning anxiety at the end of the course of study, the use of mobile phones and the learners' perception towards their use as well as the learners' language learning experience throughout the semester.

3.4.1.2 Course assessments

The next set of quantitative data was the course assessment results of the English oral interaction course. Table 3-2 summarises the four assessments designed for the English oral interaction course representing the topics covered in the course. The assessments included an individual pronunciation test, pair conversation role play, group mock interview and group oral presentation. Initially, three assessments were selected for the research study but the researcher was not able to get assistance from her teaching colleague to do member validation of the assessment together with the researcher for the first chosen assessment. Then, the researcher selected two other assessments - role play and mock interview for analysis, which was to compare the performance of oral interaction of the learners from the Treatment group before and after integrating the use of mobile phones. The final course assessment, the oral presentation, was not included because the researcher had to finalize collecting data earlier than the original plan.

Table 3-2
Course assessments for English oral interaction course

Week 1	Course assessments	Member-checking
5 – 6	Pronunciation test	-
8	Conversation role play	✓
11	Mock interview	✓
13 – 14	Oral presentation	-

Learning from the setback at the early stage of the research, the class activities were recorded using an iPad, a portable device that belonged to the researcher. The main reason for recording class activities was to familiarise the learner-participants with using the mobile devices they owned that had the audio/video features. Secondly, using the mobile device in class from the beginning was to avoid the learner-participants developing any feeling of discomfort or being intruded upon, as well as to familiarise the teacher-researcher with the technical and physical aspects of the mobile device. The learner-participants too were encouraged to use their mobile phone or any form of tablet they owned to record individual, pair, group or class practices during the course of learning. Not only for class activities, the researcher further used her iPad to do video-recording of the other two assessments – role play and mock interview. Video-recordings are an electronic means of collecting data during observation (Nunan & Bailey, 2009). The recordings were then transferred onto CDs via desktop computers. Next, the researcher

set another appointment with her teaching colleague to review the videos together in order to assess the learners' performance. Thus, the justification for using the iPad as a recording device was to be used by the co-assessor for member-validation of the course assessments as part of the quantitative data. Inviting a teaching colleague for member validation of the course assessments was to validate qualitative data analysis as inter-rater reliability was essential to ensure the teacher-researcher and teacher-participant had consistency in awarding marks to every learner and to compare the scores awarded by both assessors.

3.4.1.3 Observation notes

The first qualitative instrument for collecting data in the study was observation which according to Nunan and Bailey (2009) can be done manually or electronically. Observation is an ongoing record reporting observations, reflections and reactions to classroom events. Moreover, observation notes represent the researcher-observer's perspective and understanding of the activities and provide brief contextual information (Chapelle, 2009).

In relation to this study, the teacher-researcher had not planned to get assistance from her colleague to act as a participant-observer on the justification that the she designed the intervention to be used in the study and was aware of what aspects to observe. During the classroom observation phase, the teacher-researcher observed the learners in the classroom and collected data on aspects of learning, in general, and the use of mobile phone, specifically. The focus of the observation was on the use of mobile phones to improve the learning process and the reinforcing of successful learning. The researcher did not use predetermined categories and classifications but recorded observations in a more natural open-ended way. The learner behaviour was observed as the stream of actions and events as they naturally unfolded. The researcher documented any issues the learners raised in or out of classes, what was heard, observed, experienced, and thought in the course of collecting and reflecting on the data. Nevertheless, the categories and concepts for describing and analyzing the observational data emerged later in the research, that is, during the analysis.

From the first in-class meeting with the three respective groups, the researcher found only a third of the learner-participants possessed mobile phones with internet-enabled facilities. Thus, only a minority of them were able to use their mobile phones to access related supplementary materials from the Internet. Later during the course of teaching and researching, the researcher discovered that the LMS was not mobile friendly and was confirmed by the learner-participants. The teacher- researcher consulted with her supervisor who suggested developing a blog which was said to be mobile friendly. Once the blog was developed, the teacher-researcher reloaded the supplementary

materials related to the English oral interaction course to match what was done in the LMS. The blog enabled learner-participants to access the supplementary materials on their mobile phones for language learning purposes.

3.4.1.4 Focus group interviews

A focus group is defined as an interview style design for small groups of unrelated individuals that are formed by a researcher who leads the group discussion (Barbour, 2008). Recruiting learners so that the sample group is statistically representative of the population to be studied is of central importance as the need is to establish the generalizability to the population of the conclusions drawn from research (King & Horrocks, 2010). Interviews help to illuminate findings and issues being investigated, and verify observations as well as to provide in-depth results. The responses obtained in an interview may be relatively rich and spontaneous so as to complement and supplement the quantitative data collected from the survey questionnaire; nevertheless, the central themes remained the core concern of the interview. It is claimed that focus group interviews are a practical strategy to be used either as a stand-alone data collection instrument or as a line of action in a triangulated design (Berg & Lune, 2012). Moreover, they are used in the study "to gather descriptive data in the subjects' own words so that the researcher can develop insights on how subjects interpret" (Chapelle, 2009, p. 103) research questions.

For this study, the interview sessions were held between the teacher-researcher and four groups of learner-participants. The teacher-researcher selected three learners to be in each of the focus groups and determined the time and place convenient to them to conduct the interviews. Though the teacher-researcher expected more learners to be in each of the focus group, the groups had only one free hour after the class instruction. This constraint limited the number of learner-participants in each focus group.

Three of the groups agreed for their interview sessions to be conducted in a classroom at the faculty where the researcher was working whilst the other group proposed to carry out the interview session at the faculty where they were studying. On the first meeting with the focus groups, the teacher-researcher briefly informed the participants of the purpose of the interview, assuring them that responses given in the interview would be treated confidentially, obtained their permission to audio record the interviews, and notified them of their right to withdraw at any stage. In addition, the teacher-researcher offered flexibility to the learners to respond in Bahasa Malaysia entirely, English entirely or to code switch between English and Bahasa Malaysia. The researcher believed the flexibility to use any languages would enable the learner-participants to express themselves freely about their points of view. Before each interview session, the teacher-researcher recorded the

date, place and interviewees' names in her note, then started the interview sessions with ice-breaker questions and audio recorded using an MP3 recorder that provided a verbatim account of the sessions. All learner-participants gave their feedback in English, although sporadically, they used a word or a phrase in Bahasa Malaysia which did not detract from the meaning of their responses. According to the learner-participants they felt 'comfortable' and 'at home' during the interview sessions and they attempted to respond in English language though at a slow phase.

Table 3-3
Focus group interview sessions

Date	Time	Venue	Interviewees
2 March 2012	2.30 pm	Bilik Sarjana, FBMK	S1, S2, S12
8 March 2012	2.30 pm	Bilik Sarjana, FBMK	C8, C17, C20
9 March 2012	2.30 pm	Bilik Sarjana, FBMK	C2, C4, C14
15 March 2012	4.30 pm	Tutorial room, FS	S11, S13, S20

Table 3-3 records the interview sessions with the focus group which were carried out only four times with a total of twelve learner-participants from the Treatment group. The teacher-researcher planned for more regular interview sessions but the learner-participants were too occupied to allocate their time. The teacher-researcher prepared a semi-structured interview (see Appendix I) as a point of departure for the interview and the questions were based on the preliminary analysis of the pre-test online survey and more questions emerged as the interview unfolded. The advantage of a semi-structured interview model is it offers flexibility allowing interviewees an opportunity to shape the flow of information. At the same time the researcher was able to ask probing questions to gain a fuller understanding of the issue under discussion (Clough, Jones, McAndrew, & Scanlon, 2008). The length of each interview varied from one group to another and lasted between 30 minutes to an hour.

The interview sessions were audio-recorded to enable the teacher-researcher to correct or amplify her interpretation. She then transcribed the recording and the verbatim transcriptions were checked twice - first by reviewing the recorded interview and the second after making amendments to the transcriptions and showing them to the focus groups to check on accuracy of the content for content validity and making amendments to the transcriptions. The data were subjected to a thematic content analysis with themes identified and categorized (Berns, 1990).

3.4.1.5 Reflective journals

Reflective journals are excellent tools to reflect on the learning process (Borg, 2001). Learner-participants were advised to record the learning process throughout the semester to complement quantitative data. When checking on this task, it was noted that many of the learner-participants were not able to record their reflection after every lesson. Subsequently, the teacher-researcher assigned guided reflective journal topics from time to time (see Appendix J). The researcher also made use of reflective journals as an alternative to not being able to conduct more focus group interviews. When the teacher-researcher thought of getting information about an action or issue, she wrote the topics on the whiteboard in the classroom and allocated about ten minutes for the learner-participants to write in their journals. The journal writings were collected at the end of class sessions of every assignment.

3.4.2 Data collection procedures

3.4.2.1 The instrument trials

The instrument trial for the study refers to the pretesting phase of the survey questionnaire as the main instrument as well as the semi-structured interview questions as the supplementary instrument. Data from the survey questionnaire obtained from the trial phase were treated as the baseline data. Moreover, the instrument trial allowed the researcher to assess the feasibility of the main study. The rationale for administering the instrument trial included identifying problems associated with the understanding and interpretations of the instructions and statements in the questionnaire relevant to the study; examining if items did elicit what the researcher aimed to find out; validating the degree to which the questionnaire was measuring what it was intended to measure; and identifying ambiguities, confusion, or other problems with the content of the questionnaire.

Participation in the instrument trial was voluntary inviting participants who were not involved in the main research because they were not exposed to the exact survey questions (Sue & Ritter, 2007). Three instrument trial phases were administered to different groups of participants and each phase was for a different purpose. The first instrument trial was administered to a group of university learners in Malaysia in December 2011. The teacher-researcher perceived that a trial conducted with a representative group of respondents of similar background to the learner-participants in the main study was essential for four objectives. First, the questionnaire was prepared in English language so it was necessary to know the respondents' understanding of the survey content. Second, the researcher wanted to confirm that the instructions in the survey were understood. Third, the trial was to ensure that the respondents understood the options of responses for every question. Fourth, the researcher

wished to get suggestions from the respondents to improve the content validity of the questionnaire. These approaches are agreed by Nunan and Bailey (2009) who proposed the administration of questionnaire before the main data collection in order to locate any unclear items, misnumbered items, confusing instructions and other purposes.

For this first instrument trial, the teacher-researcher obtained assistance from her colleague, Mr. M, who was also an academic staff member from the same university as the researcher. Mr. M volunteered to pilot the questionnaire to a group of his learners who were of similar English language proficiency to the potential participants in the main research. Ten of his students volunteered to participate in the trial phase. The teacher-researcher then provided detailed procedures to Mr. M on ways to conduct the instrument trial. She emailed Mr. M the designed questionnaire which was prepared in the English language version only assuming there was no significant possibility of the participants' misunderstanding of the language. Next, Mr. M discussed with the volunteers the suitable time for all of them to meet together in class. Mr. M and his learners decided on the day and time to meet, and Mr. M determined the classroom for them to meet.

On the day of the meeting, Mr. M distributed hardcopy of the questionnaire to every learner. First, he thanked and explained the purpose of the study and reasons why they were invited. Next, Mr. M briefed his students on ways to respond to the questionnaire. For instance, they were required to indicate their responses to every question; in the midst of the process, they could refer to Mr. M for any English terms that they were unsure of; throughout the session the participants were allowed to clarify any ambiguous questions; and they were also allowed to provide suggestions to improve the contents of the questionnaire. Mr. M and his learners met for an hour to complete the phase. Based on the verbal responses during the instrument trial of the questionnaire Mr. M provided the teacher-researcher the feedback he received from his participants. He offered the teacher-researcher suggestions on how to improve the terms used in the questionnaire as well as suggestions given by the participants. The teacher-researcher considered the suggestions and improved the questionnaire by eliminating less significant questions, reducing the questionnaire length, and rephrasing any unclear questions.

The second instrument trial took place in January 2012 and was administered online. The teacher-researcher completed developing the questionnaire using the Qualtrics online tool based on the suggestions gathered from the group of learners discussed earlier before launching the revised online survey. Next, she invited ten Malaysian on campus postgraduate learners of University of Southern Queensland from Faculty of Arts, Faculty of Business and Laws, Faculty of Engineering and Faculty of Education to respond to online survey questionnaire via email by giving the uniform resource locator (URL) link of

the survey. The main purpose of this trial was to check on the flow of the questionnaire content that was designed. Besides, the volunteers were also advised to consider other items including clarity of the instructions; clarity of the English language; layout of the survey; time taken to complete the survey; and other constructive comments. Changes were made upon receiving these feedback comments from the respondents. The researcher then examined the returned questionnaire and studied the main remarks and suggestions provided by them and made necessary amendments.

The third instrument trial was uploading the questionnaire on the LMS of the university before the semester commenced to ensure that the choice of LMS as the medium to reach a wide platform of participants for the study was possible. The teacher-researcher got three of her teaching colleagues who agreed to respond to the online questionnaire. The researcher then emailed the URL link to all three of them and decided on a time for them to respond to the online survey questionnaire with the presence of the researcher. The trial run was done on their desktop computer in the office. The teaching colleagues and the teacher-researcher received the response and noticed no difficulty to access and respond to the questionnaire on the LMS. However, an issue that they discovered was that the URL link could only be copied and pasted onto the LMS by respective teachers. Therefore, for the purpose of the main study, the teacher-researcher emailed to all twenty-two teachers who were assigned to teach the English oral interaction course that semester requesting them to copy and paste the link of the online questionnaire onto individual LMS. The teachers were notified about the voluntary nature of the activity but encouraged participation from their learners. In addition, the learners were allocated four weeks from the commencement of the semester to access the online questionnaire.

The other instrument that was trialled was the semi-structured interview questions. The teacher-researcher identified three learners from other groups of the English oral interaction course and interviewed them. The purpose of the trial run was to check if the questions would mean the same to other learners; to ensure common understanding of the questions; to verify the use of English language forming the questions; and finally to estimate the time needed to administer every interview session.

3.4.2.2 The main study

The data collection for the main research took place in Semester 2, 2011-2012 from 20 February to 3 June 2012. The researcher was physically present for the data collection for ten weeks for a total of three phases. The main study employed all the research instruments discussed in Section 3.4.1.

The first phase was administering the pre-test online survey to the population of learners who enrolled in the English oral interaction course in the current semester. A total of fifty groups of the course were offered and fully enrolled with legitimate learners. The researcher deliberately allocated four weeks for learners to access the online survey considering academic and technical problems that usually arise at the beginning of semester. Academic problems included registering and dropping of course; whilst technical problems refer to failure of accessing the LMS or rescheduling of class meetings. As described in Section 3.4.2.1, the teacher-researcher emailed the URL link of the survey questionnaire to all the twenty-two teachers who were assigned to teach the English oral course. The researcher made available the link of the pre-test survey questionnaire onto the LMS of the university for the groups assigned to her and other groups of her teaching colleagues who required assistance. The participants were reminded about the accessibility to the survey which was a month from the day it was made available on the system.

In relation to obtaining consent and preserving the anonymity of the participants, in particular the online survey respondents, an informed decision about participating in the research was given at the beginning of the survey. The information provided in the introduction included the general nature of the survey, the identity of the sponsor of the research, how the data would be used and the estimated time to complete the survey (Sue & Ritter, 2007). The information also stated the confidentiality and anonymity of participants. Online survey respondents gave their consent to participate in the study by clicking on the submit button at the end of the questionnaire. In case any of them decided to discontinue participating they needed to close the browser only.

The result of the pre-test administration identified 205 learner-participants who responded to the online survey questionnaire but after screening the returned questionnaires only 198 questionnaires were used for statistical analyses. The initial pool of the learner-participants is summarized in Table 3-4.

Table 3-4
Distribution of learner-participants from various faculties

Faculty	n	%	Program cluster	%
*Science	84	42.4	Pure Science	42.4
Environmental Studies	11	5.6	Applied Sciences	16.7
*Science Computer and Information Technology	20	10.1		

Faculty	n	%	Program cluster	%
Medicine and Health Science	1	0.5	Health	0.5
**Engineering	42	21.2	Engineering	21.2
Human Ecology	12	6.1	Social Sciences	20.2
Economics and Management	28	14.1		

Treatment group
** No Treatment group

The aim of the pre-test survey was to include learners from all the sixteen faculties across the university; however, the responses received were from participants from eight faculties only. Table 3-4 shows the total number of participants from these faculties which ranged from one to eighty four. For a better representation of the results including the small number of participants from a few faculties, the researcher decided to group the eight faculties according to academic program cluster labelled by the university. The majority of the participants were from the Pure science cluster (42.4%) and the least number of participants were from the Health cluster (0.5%).

In determining the sample learner-participants, the researcher requested from the Head, English language Proficiency Unit of the faculty, three different groups who did Science subject, Physics, Biology or Chemistry. Degree courses under the science clusters require learners to have minimum of intermediate-level of English language proficiency. The researcher was then assigned a group each from Faculty of Science and Faculty of Science Computer and Information Technology representing the Treatment group, and Faculty of Engineering representing the No Treatment group. The groups of learner-participants were selected on the basis of purposeful sampling as the researcher intentionally selected the learners based on the purpose of the research (Creswell & Plano-Clark, 2011) and "they are the best in helping the researcher understand the problem and the research question" (Creswell, 2009, p. 178) for they are believed to be representative of a given population (Gay et al., 2006). The key element of purposive sampling is that the researcher deliberately identifies the criteria for selecting the sample (Gay et al., 2006). The selected learner-participants represented the population of learners so the results can be generalised to a population.

The second phase of the main study was the in-class meeting with the Treatment and No Treatment groups at the beginning of the semester on three

different occasions. The teacher-researcher introduced the course matter and briefed the learner-participants on the content and assessments of the English oral interaction course, the web pages uploaded on the LMS as supplementary materials, and the research study that the researcher was doing. Then, she verbally asked them on their willingness to participate in her study. All the 76 learner-participants agreed to participate and they were also advised that there would be no adverse effects on them in case they decided to withdraw anytime during the course of the study. Next, the researcher distributed the participant information sheet stating the procedures and voluntary participation clause for them to read. Then, the researcher distributed the consent form for them to read and sign indicating their understanding and willingness to engage in the research (see Appendix K). While reading both documents, the learners were allowed to ask for clarification on the content of both documents. All learners could understand the content perfectly well and signed the consent forms which were then collected. The informed consent form acknowledged the protection of participants' rights during the collection of data. Similarly, the respondents who would be selected to be in the focus group interviews were also advised on their right to withdraw from any of the interview sessions anytime by informing the researcher verbally.

Throughout the research, participants were assured anonymity and care was taken to maintain confidentiality of their responses. Individual identities were not revealed and the use of pseudonyms has occurred in the presentation of the information and participants' quotes. However, their names were required by the researcher for the purpose of analyzing matched responses from pre- and post-test online surveys.

For the two Treatment groups the teacher-researcher observed the learner-participants' possession of their mobile phones and the general use of their mobile phones before introducing and demonstrating possible uses of mobile phones for language learning purposes, such as for dictionary use, recording purposes and dictation application. The teacher-researcher encouraged discussion from the learner-participants on their use of mobile phones and they were encouraged to share the skills they were familiar with using the mobile phones. They were reminded about possibilities of exploring more features of mobile phones throughout the semester. Further discussions with the learner-participants took place on how to apply these skills for language learning purposes. As for the No Treatment group, the teacher-researcher introduced the course matter and briefed the learner-participants on the content and assessments of the English oral interaction course, and the web pages uploaded on the LMS as supplementary materials.

The learner-participants for the main study aged between 19 and 24 years old. The Treatment group was from two different groups - one class of 25 learners including 10 males and 15 females as well as another class of 11 males and 14

females. The No Treatment group was from a class of 26 learners including 13 males and 13 females. Table 3-5 shows details of the learner-participants' English language proficiency and the majority of the learners from the Treatment group were modest users of the English language; on the other hand, the majority of the learners from the No Treatment group were limited users of English language.

Table 3-5
English language proficiency of learner-participants

MUET result	Language user descriptor	Treatment group	No Treatment group
Band 4	Competent user	4	0
Band 3	Modest user	31	6
Band 2	Limited user	13	20
Band 1	Extremely limited user	2	0
Total		50	26

Note: MUET = Malaysian University English Test

The final phase of the data collection for the main study was administering the post-test online survey questionnaire to both the Treatment and No Treatment groups at the end of semester 2. Similar to the pre-test, the link to the post-test survey was uploaded onto the LMS in the final week of the semester. The teacher-researcher reminded the learner-participants to respond to the questionnaire immediately after the last class beginning from 2 till 30 June 2012. The teacher-researcher decided to make the survey accessible for four weeks taking into account the study and examination weeks at the end of the semester. At the end of the four weeks, the researcher emailed the post-test survey questionnaires to the learner-participants who had not responded to the survey. This was done as a contingency plan if learners incurred a technical problem to access the LMS. The teacher-researcher realised that she had to manually key-in the responses upon receiving the emails of the post-test survey questionnaires after receiving them from the learner-participants.

3.5 Data analysis procedures

This research study employed the combination of quantitative and qualitative approaches using multiple forms of data; hence, the process of data analysis was done independently for each approach before triangulating the results.

3.5.1 Statistical package for social sciences

The Statistical Package for Social Sciences (SPSS) Version 21.0 for Windows was the computer program used to store and analyse the quantitative data. Before the data were statistically analysed, a battery of parametric statistical tests were run beginning with detecting outliers among cases and assessing normality. That was followed by descriptive statistics in order to explore the collected data before meaningfully describing them using central tendency (mean); dispersion (range, variance and standard deviation); and frequencies (raw data and percentages) (Gay et al., 2006). Next was inferential statistics namely reliability analysis, cross-tabulation, independent samples t-test, paired samples t-test, ANOVA and chi-square test (Gay et al., 2006).

The online survey responses using Qualtrics for both the pre- and post-tests were exported to SPSS directly. Many of the learner-participants responded to the emailed post-test questionnaire which required the researcher to manually key-in the data onto the SPSS spreadsheet before further analysis.

3.5.2 Nvivo

Nvivo (http://www.qsrinternational.com) is distributed by QSR International in Australia and is used to assist in analyzing, managing and shaping qualitative data. The process to analyze qualitative data is similar to manual coding where the researcher still needs to do the coding and categorizing (Creswell, 2013). This computer programme was used in the study in assisting the data analysis obtained from the qualitative research instruments.

The notes from the two hereof the qualitative research instruments – observation notes and reflective journals– were hand-written. The researcher then typed out the notes and responses using the Microsoft Word processing programme. The Word documents notes as well as the interview transcription (described in section 3.4) were then imported to the Nvivo programme installed on the researcher's office computer (see Figure 3-3). Notes, journals and interviews were saved in individual files on the Nvivo program under the category of 'Source'.
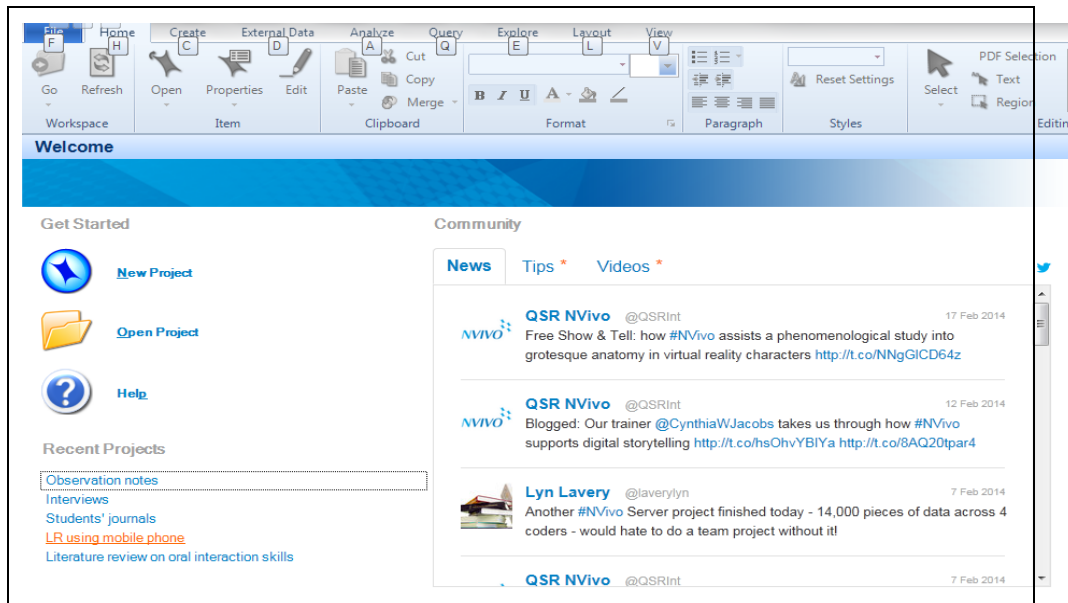
Figure 3-3. Instruments of qualitative data

For example, Figure 3-4 illustrates one of the sources of the qualitative instruments that is the reflective journals. The three folders to store the source materials are Internals, Externals and Memos. The 'Internals' folder contained the individual learner-participant's journals with attached documents imported into Nvivo. The 'Externals' folder would contain representations of materials that cannot be imported into Nvivo which this study did not have any. Finally, the 'Memos' folder contain memos predetermined or determined by the researcher during the course of coding.
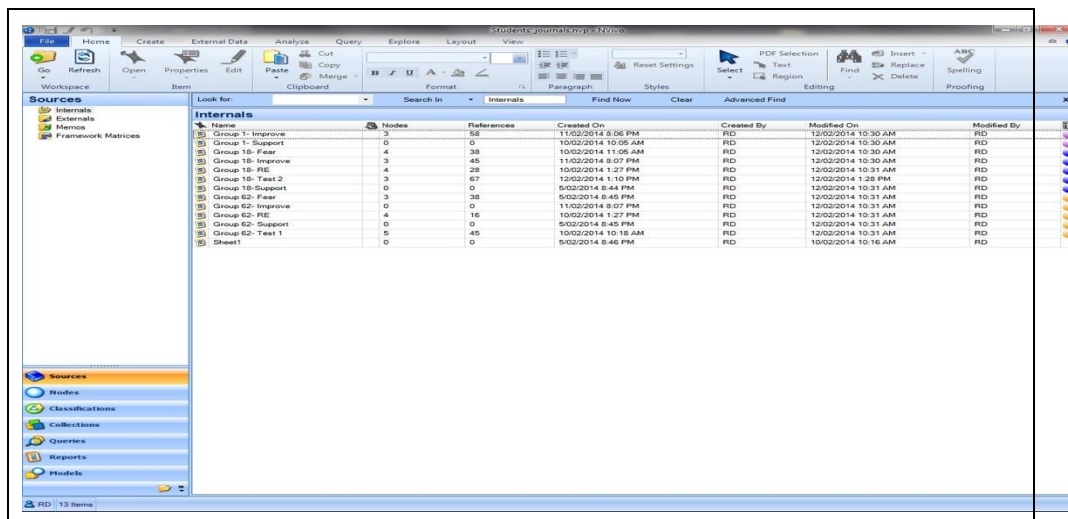
Figure 3-4. *Reflective journals*

Thematic analysis was applied to categorise the information obtained from each of the data sources. The different themes created were labelled as 'Node' representing data from individual sources or combination of sources of the qualitative instruments. To analyse each source, the researcher opened an internal source and began the coding process by highlighting the relevant information and associate them to the suitable node. The first coding process was open coding by reading the text reflectively to generate relevant codes; the second coding process was axial coding by exploring the relationship of categories and making connections between them; the last coding process was selective coding to explicate a story from the interconnection of these categories (Creswell, 2009).

3.5.3 English language results

The study aims at assessing the English language results of the learner-participants before and after the integration of mobile phones during the course of learning. The most recent English language proficiency results of the first year learner-participants who enrolled in the English oral interaction course were MUET (see section 1.2.3). The information of MUET results was one of the items in the demographic section enquired in the pre-test survey questionnaire.

The initial plan was to refer to MUET Speaking Assessment Criteria in evaluating the learner-participants' English oral interaction course assessments for reliability. The researcher wrote a few times to the Malaysian Examination Syndicate in order to obtain permission to use the criteria for the study, but received no reply before the first assessment was due to be carried out. Instead, the researcher decided to adopt the 'Description of performance level: Oral interaction' as described by Paltridge (1992). The teacher-participant who did the member checking for both course assessments was briefed and given the Oral interaction descriptor (Paltridge, 1992) prior to the marking.

The development of English for Academic Purposes placement test is described in the article entitled EAP placement testing: An integrated approach (Paltridge, 1992). When the article was published, the placement test had been administered for a number of years with a total of 18 years in both the local context (New Zealand) and international context (Japan). This established the reliability of the placement test.

For the purpose of the current study, the researcher and the teacher-participant came to an agreement on the equivalence of the descriptors set for MUET to the English for Academic Purpose placement testing for oral interaction skills (see Table 3-6). The course assessments administered in this study were

graded according to the descriptor set for English for Academic Purpose placement testing.

	Band 1 Extremely limited user	Band 2 Limited user	Band 3 Modest user	Band 4 Competent user	Band 5 Good user	Band 6 Very good user
*Malaysian University English Test	Poor command of the language. Unable to use language to express ideas. Inaccurate use of the language resulting in frequent breakdowns in communication. Little or poor understanding of language and contexts. Hardly able to function in the language	Limited command of the language. Lack expressiveness, fluency and appropriacy. Inaccurate use of the language resulting in breakdown in communication. Limited understanding of language and contexts. Limited ability to function in the language.	Modest command of the language. Modestly expressive and fluent, appropriate language but with noticeable inaccuracies. Modest understanding of language and contexts. Able to function modestly in the language.	Satisfactory command of the language. Satisfactory expressive and fluent, appropriate language but with occasional inaccuracies. Satisfactory understanding of language and contexts. Functions satisfactorily in the language.	Good command of the language. Expressive, fluent, accurate and appropriate language but with minor inaccuracies. Good understanding of language and contexts. Functions well in the language.	Very good command of the language. Highly expressive, fluent, accurate and appropriate language: hardly any inaccuracies. Very good understanding of language and contexts. Functions extremely well in the language.
**EAP Placement	Beginner Marks 0 – 19	Elementary Marks 20 – 39	Intermediate Marks 40 – 54	Upper intermediate Marks 55 – 69	Advanced Marks 70 – 84	Special purpose Marks 85 – 100
	Cannot communicate in English at all.	Communication only occurs sporadically.	Neither productive skills nor receptive skills allow continuous communication.	Can get by without serious breakdowns. However, misunderstandings and errors may still occur.	Copes well in most situations. Will have occasional misunderstandings or errors.	Copes well in most situations. Can perform competently within own special purpose areas.

Table 3-6
Oral interaction descriptors
Note. * From "Assessing oral skills of pre-tertiary students: The nature of the communicative act" by Chan, S. H. and Wong, B. E., 2004, Paper presented at the International Conference on English Instruction and Assessment.
Note: ** From "EAP Placement testing: An integrated approach" by Paltridge, B. 1992. English for Specific Purposes, 11, pp. 243 – 268

3.5.4 Transcription

As mentioned in Section 3.4.1.4, the teacher-researcher audio-recorded the focus group interviews using an MP3 recorder. The recordings were then transcribed verbatim. That is, she transcribed the words and other clear conversational cues including pauses, continuity; break in utterance and contextual comments in the transcriptions. This was done to help the researcher to interpret the meanings of what was said in the recordings. The researcher used the transcription software, 'Express Scribe' version 5.06, which is a professional audio player application for PC or Mac designed to assist the transcription of audio recordings. The software can be downloaded from http://www.nch.com.au/scribe/index.html.

3.6 Triangulating the data

After analyzing the data collected using the various research instruments, the researcher associated the sets of analyses to each other. This was done by triangulating the individual data from one research instrument to the others. This process of triangulation enabled the researcher to determine the relationship between the variables investigated in the study.
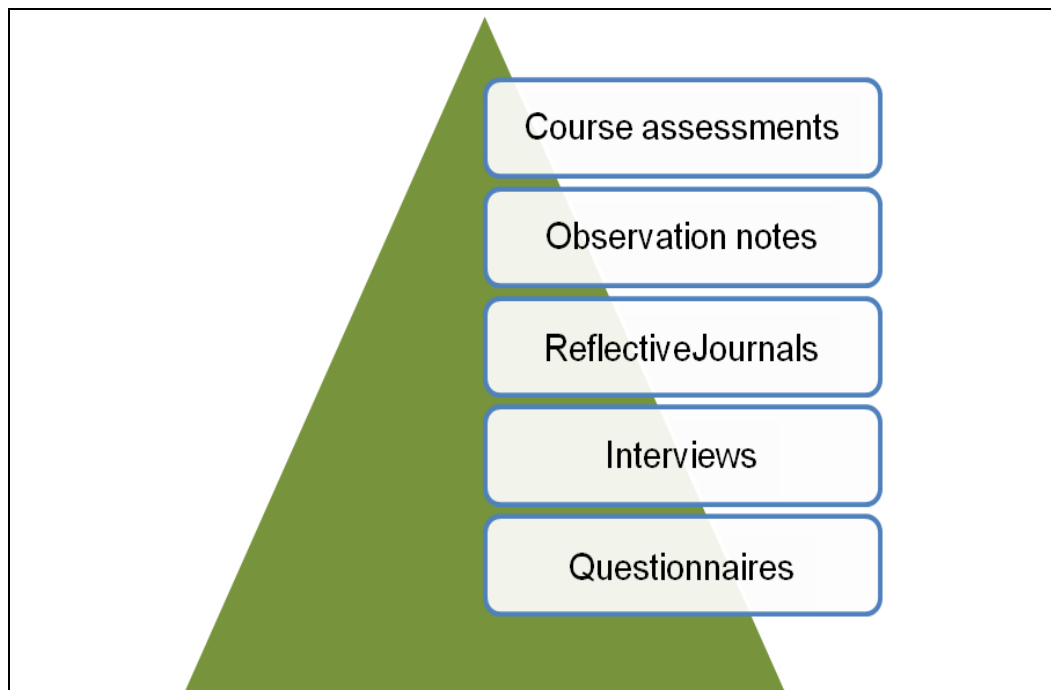
Figure 3-5. Data triangulation process

3.7 Chapter summary

This chapter described the mixed methods research and the philosophical worldview underlying the design to justify the choice of mixed methods approach. It then gave an overview of the context of the study and the participants involved in the study. The chapter explained the multiple instruments utilised for collecting data and the associated procedures involving the collection of data. The chapter ends with the procedures involved in the data analysis. The next chapter presents the quantitative results of the data.

CHAPTER 4: RESULTS: QUANTITATIVE DATA

Whatever you do will be insignificant, but it is very important you do it. - Mahatma Gandhi

This chapter focuses on the results obtained from the main study, presenting analyses of quantitative data collected from both the pre-test and post-test survey questionnaires. Section 4.1 describes the data preparation process, including handling of missing data and the assessment of normality which "is a prerequisite for many inferential statistical techniques" (Coakes, 2013). Section 0 establishes the reliability of the English language classroom anxiety scale (ELCAS) and its three components – communicative apprehension, fear of negative evaluation and test anxiety used as the main instrument of the study. Section 4.3 presents the demographic data to establish a sound and rigorous case that the Treatment and No Treatment groups are similar in most background characteristics and that selection differences would probably not have an effect on the results (McMillan & Schumacher, 2009) and data from the pre-test analysis. Section 4.4 focuses on the findings of the post-test data, and finally Section 0 presents comparative analyses of pre- and post-test data.

4.1 Data preparation

It is pertinent to report "the frequency of percentages of missing data" in order to avoid "a detrimental effect on the legitimacy of the inferences drawn by statistical tests" supported by "any empirical evidence and/or theoretical arguments for the causes of data that are missing" (American Psychological Association, 2010, p. 33). During the course of the main study, there were initially 204 participants who returned the pre-test online survey questionnaire. However, during the preliminary data screening, it was discovered that the recurring reason for the missing data was that some of the participants did not provide complete answers. As a result, 6 (2.9%) incomplete responses were excluded pairwise (George & Mallery, 2009) to produce the final dataset for analysis (n = 198).

Prior to inferential statistical analyses, the assumption of normality should be tested using graphical methods such as histogram, stem-and-leaf plot and box plot; or statistical measures such as Kolmogorov-Smirnov statistic and the Shapiro-Wilk statistic (W), skewness and kurtosis (Coakes, Steed, & Dzidic, 2006). Fundamentally, it would be quite a rare phenomenon for a research study to produce "distributions of data that approximate a normal distribution" (George & Mallery, 2009, p. 97) but "the assumption of normality is a prerequisite for many inferential statistical techniques" (Coakes, 2013, p. 39).

Normality was assessed for the scores of English language anxiety within each of the groups, Treatment and No Treatment, using Kolmogorov-Smirnov and Shapiro-Wilk statistics. Table 4-1 shows that the significance level for the Kolmogorov-Smirnov statistic is greater than .05; thus, normality is assumed. The Shapiro-Wilk statistic is considered as this study involved sample size less than one hundred and W is .975 (p = .349) for the Treatment group data; and .974 (p = .741) for the No Treatment group data. Thus, the assumption of normality is not violated for either group.

Table 4-1
Tests of normality for Treatment and No Treatment groups

	Group	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	p.	Statistic	df	p
English language anxiety score	Treatment	.107	50	.200[*]	.975	50	.349
	No Treatment	.143	26	.183[*]	.974	26	.741

4.2 Reliability analysis

The ELCAS is made up of 33 items, each self-assessed on a 5-point Likert scale ranging from 1 = Strongly disagree to 5 = Strongly agree. Cronbach's alpha internal consistency value calculated for the 198 participants was 0.92, implying that the ELCAS is a suitably reliable instrument to measure the English language anxiety level of Malaysian learners. The Cronbach's alpha value for communicative apprehension is .84, fear of negative evaluation is .84, and test anxiety is .54. According to Sekaran (2009) the closer the reliability coefficient (Cronbach's alpha) is to 1.0 the better it is and those values over 0.8 are considered as good. For the present study, however, the internal consistency of test anxiety is low implying the need to treat the component with caution.

4.3 Pre-test data

4.3.1 Demographic data

Section A in the questionnaire solicited demographic information from the learner-participants. The ten independent variables listed in the questionnaire included gender, nationality, ethnicity, age, academic year, faculty, location of secondary school, Sijil Pelajaran Malaysia (SPM) English language results, Malaysian University English Test (MUET) results and whether or not the

respondents had visited English speaking countries. The exploratory analyses of demographic data are presented in Table 4-2 for the Treatment group and Table 4-3 for the No Treatment group.

Table 4-2
Demographic information for Treatment group

Personal information			n	%	Total
Academic year	Year 1		49	98.0	
	Year 2		1	2.0	50
Age	19		6	12.0	
	20		23	46.0	
	21		12	24.0	
	22		2	4.0	
	23		5	10.0	
	24 and more		2	4.0	50
Gender	Male		20	40.0	
	Female		30	60.0	50
Ethnic group	Malay		28	56.0	
	Chinese		19	38.0	
	Indian		2	4.0	
	Others		1	2.0	50
Location of last school	Urban		33	66.0	
	Rural		17	34.0	50
Visiting English speaking countries	Yes		4	8.0	
	No		46	92.0	50
		Descriptor			
SPM English language result	1A	Distinction	6	12.0	
	2A		11	22.0	
	3B	Credit	14	28.0	
	4B		11	22.0	
	5C		4	8.0	
	6C		0	0	
	7D	Pass	4	8.0	50
MUET result	Band 4	Competent user	6	12.0	
	Band 3	Modest user	29	58.0	
	Band 2	Limited user	15	30.0	50

SPM = Sijil Pelajaran Malaysia

MUET = Malaysian University English Test

The total number of the learner-participants representing the Treatment group was 50 with the minimum age of the learner-participants 19 and the maximum age 24. The majority of learners were in Year 1 of the undergraduate programme. This finding was expected as the English oral interaction course is offered to Year 1 learners. They could register for the course either in semester 1 or semester 2 of the academic session. One of the learners in the Treatment

group was from Year 2. It was deduced that the learner-participant was repeating the course as it is the requirement of the university for learners to pass the course before they are eligible to register for another university English language course. In regards to gender, the majority of the learner-participants were female. In terms of ethnicity, Malays dominated the Treatment group, followed by Chinese and Indians. The ethnicity distribution appeared to reflect the constituent characteristics of a public university learner population. The results on ethnicity also represent the first language of the learners, that is Malay language is the first language for Malay learners, Mandarin is the first language for Chinese learners, Tamil is the first language for Indian learners and various dialects apply to the first language of other ethnic groups. The majority of the learner-participants attended their last schools located in urban areas and the majority had not visited any English speaking countries. Other pertinent background information includes the English language national examinations results of the learner-participants, SPM and MUET. On the basis of the exit examination from upper secondary school, SPM, the majority of the learner-participants achieved grade B (50%) followed by grade A (34%). Based on the entrance examination to undergraduate programmes, MUET, the majority achieved band 3 (58%), categorised as modest user.

Table 4-3
Demographic information for No Treatment group

Personal information			n	%	Total
Academic year	Year 1		19	73.1	
	Year 2		7	26.9	26
Age	20		18	69.2	
	21		3	11.5	
	22		1	3.8	
	23		2	7.7	
	24 and more		2	7.7	26
Gender	Male		18	69.2	
	Female		8	30.8	26
Ethnic group	Malay		26	100.0	26
Location of last school	Urban		13	50.0	
	Rural		13	50.0	26
Visiting English speaking countries	Yes		6	23.1	
	No		20	76.9	26
		Descriptor			
SPM English language result	1A	Distinction	4	15.4	
	2A		3	11.5	
	3B	Credit	5	19.2	
	4B		4	15.4	
	5C		7	26.9	
	6C		3	11.5	26
MUET result	Band 3	Modest user	6	24.0	
	Band 2	Limited user	19	76.0	25

SPM = Sijil Pelajaran Malaysia
MUET = Malaysian University English Test

The total number of the learner-participants representing the No Treatment group was 26 with the minimum age of the learner-participants being 20 and the maximum age 24. The majority of learners were in Year 1 of the undergraduate programme and the male learners dominated the group. The only ethnicity in the group was Malay. There were equal numbers of learners who had attended schools in urban and rural locations. Similar to the Treatment group, the majority of learners from the No Treatment group, 77%, had not visited English speaking countries. The largest group of learners achieved grade C (37.4%), followed by grade B (34.6%) and grade A (26.9%) in SPM. 76% of the learner-participants achieved band 2 (limited user of English language) in MUET. One learner-participant was accepted into the undergraduate programme with his A-level qualification and he did not have the MUET result.

4.3.2 English language classroom anxiety scale (ELCAS)

Table 4-4 summarises the items for the ELCAS and its three components – communicative apprehension, fear of negative evaluation and test anxiety.

Table 4-4
Items of English language anxiety for each component

English language anxiety	Items 1 to 33
Communicative apprehension	Items 1, 4, 6, 9, 5, 11, 12, 14, 18, 22, 24, 26, 27, 28, 29, 30 and 32
Fear of negative evaluation	Items 3, 7, 13, 15, 16, 17, 20, 23, 205, 31 and 33
Test anxiety	Items 10, 191, 21, 2 and 8

Before proceeding with further statistical analyses, the individual scores for English language anxiety in general as well as scores for each of the components were calculated. For instance, to calculate an individual score for English language anxiety, the participant's responses to all 33 items of ELCAS were summed and then divided by 33. Similarly, to calculate a score for communicative apprehension, the sum of responses to the 17 items was divided by 17. The equivalent calculations were done for fear of negative evaluation and test anxiety.

4.3.2.1 Treatment group

Table 4-5 details the descriptive statistics of English language anxiety, communicative apprehension, fear of negative evaluation and test anxiety of the Treatment group.

Table 4-5
Pre-test Anxiety Levels of Treatment group (n = 50)

	Mean score	**S.D.**
English language anxiety	2.98	.42
Communicative apprehension	2.93	.43
Fear of negative evaluation	3.12	.53
Test anxiety	2.84	.51

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree; Mean = (1+2+3+4+5)/5

The general English language anxiety at the beginning of the semester is 2.98 indicating that the learner-participants in the Treatment group almost agreed or disagreed to experiencing language anxiety. Among the three components, fear of negative evaluation was the main contributor towards the English language anxiety for the Treatment group.

Table 4-6 presents details for the 17 items of the English language classroom anxiety scale with the descriptive statistics for the Treatment group.

Table 4-6
Descriptive statistics for Communicative apprehension items

	Statements	**Mean**	**S. D.**
1	I never feel quite sure of myself when I am speaking in my English language class.	3.26	.78
4	It frightens me when I don't understand what the teacher is saying in the English language.	3.04	.83
5	It wouldn't bother me at all to take more English language classes.	2.58	.86
6	During English class, I find myself thinking about things that have nothing to do with the course.	2.70	.76
9	I start to panic when I have to speak without preparation in English class.	3.34	1.04
11	I don't understand why some people get so upset over English language classes.	2.48	.76
12	In English class, I can get so nervous I forget things I know.	3.22	.93
14	I would not be nervous speaking the English language with native speakers.	2.96	.90
18	I feel confident when I speak in my English class.	2.94	.82
22	I don't feel pressure to prepare very well for English class.	2.72	.81
24	I feel very self-conscious about speaking the English	3.16	.79

	Statements	Mean	S. D.
	language in front of other students.		
26	I feel more tense and nervous in my English class than in my other classes.	2.76	.96
27	I get nervous and confused when I am speaking in my English class.	3.06	.98
28	When I'm on my way to language class, I feel very sure and relaxed.	2.62	.78
29	I get nervous when I don't understand every word the English teacher says.	3.14	.97
30	I feel overwhelmed by the number of rules you have to learn to speak English language.	2.98	.82
32	I would probably feel comfortable around native speakers of the English language.	2.88	.75

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

Even though the learner-participants in the Treatment group disagreed of experiencing communicative apprehension at the beginning of the semester, a few of the individual items indicated a certain level of anxiety. The highest five items were item 9, item 1, item 12, item 24 and item 29. These items highlight the main problem with Malaysian second language learners on their difficulty in interacting in English language. The results are obvious that the learners were not certain in using the target language and learning in the English language classroom created greater discomfort in them. For instance, if they were called to respond in the target language it is likely for them to have a sudden panic creating nervousness that would lead them to forget anything they knew and they would not understand anything the language teacher said. They also tend to be self-conscious if they were called to interact in the target language in front of their peers.

Table 4-7 presents the descriptive statistics of the eleven items on fear of negative evaluation.

Table 4-7
Descriptive statistics for Fear of negative evaluation items

	Statements	Mean	S. D.
3	I tremble when I know that I am going to be called on in the English language class.	3.10	.76
7	I keep thinking that the other students are better at English language than I am.	3.70	.89
13	It embarrasses me to volunteer answers in my English language class.	2.90	.95
15	I get upset when I do not understand what the teacher is correcting.	3.20	.88
16	Even if I am well prepared for the English language class, I feel anxious about it.	3.20	.78
17	I often feel like not going to my English language class.	2.24	.85
20	I can feel my heart pounding when I am going to be called on in English language class.	3.08	.90

	Statements	Mean	S. D.
23	I always feel that the other students speak English language better than I do.	3.60	.90
25	English language class moves so quickly that I worry about getting left behind.	2.86	.88
31	I am afraid that the other students will laugh at me when I speak English language.	3.04	1.07
33	I get nervous when the English language teacher asks questions which I have not prepared in advance.	3.42	.93

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

The learner-participants from the Treatment group indicated of being anxious towards negative evaluation and five items with the highest mean values are item 7, item 23, item 33, item 15 and item 16. Fear of negative evaluation covers a wider situation than test–taking. The individual items related to this component indicate that the Malaysian second language (L2) learners were acutely sensitive to evaluations by their language teachers and peers. They were always worried toward their language teachers who consistently evaluated their English language and would be disappointed if the teachers did not understand what they said in the target language. At the same time, the learners worried about giving bad impression to their teachers in case they did not respond appropriately when asked by their teachers. Malaysian L2 learners also indicated worry towards their peers who they assumed to have better proficiency than them and were more fluent in speaking than them.

Table 4-8 presents the five items on test anxiety. The learner-participants in the Treatment group did not experience extensive test anxiety. Nevertheless, from the five items in the table, item 10 is found to be affecting the learner-participants the most. Malaysian L2 learners indicated serious worry about the consequences of failing the English language assessments.

Table 4-8
Descriptive statistics for Test anxiety items

	Statements	Mean	S. D.
2	I don't worry about making mistakes in the English language class.	2.86	1.05
8	I am usually at ease during tests in my English language class.	2.98	.77
10	I worry about the consequences of failing my English language class.	3.36	.92
19	I am afraid that my English language teacher is ready to correct every mistake I make.	2.48	.84
21	The more I study for an English language test, the more confused I get.	2.54	.91

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

4.3.2.2 No Treatment group

Table 4-9 presents the mean value of English language anxiety in general and its three components for the No Treatment group.

Table 4-9
Pre-test Anxiety levels of No Treatment group (n = 26)

	Mean	S.D.
English language anxiety	3.16	.39
Communicative apprehension	3.12	.40
Fear of negative evaluation	3.31	.50
Test anxiety	2.92	.50

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

The general English language anxiety at the beginning of the semester is 3.16 indicating that the learner-participants in the No Treatment group agreed they were experiencing slight language anxiety. Similarly, the learner-participants felt anxious about communicating with others (3.12) as well as about others' evaluations towards them (3.31). However, the learner-participants disagreed that they were experiencing test anxiety (2.92) implying that they were not very worried about tests. Similar to the Treatment group, fear of negative evaluation was also the main contributor to the English language anxiety level for the No Treatment group.

Table 4-10 presents responses to the seventeen communicative apprehension items with means and standard deviations for the -participants in the No Treatment group.

Table 4-10
Descriptive statistics for Communicative apprehension items

	Statements	Mean	S.D.
1	I never feel quite sure of myself when I am speaking in my English language class.	3.54	.90
4	It frightens me when I don't understand what the teacher is saying in the English language.	3.54	.86
5	It wouldn't bother me at all to take more English language classes.	2.65	.85
6	During English class, I find myself thinking about things that have nothing to do with the course.	3.04	1.07
9	I start to panic when I have to speak without preparation in English class.	3.54	.95
11	I don't understand why some people get so upset over English language classes.	2.77	.65

	Statements	Mean	S.D.
12	In English class, I can get so nervous I forget things I know.	3.31	.97
14	I would not be nervous speaking the English language with native speakers.	3.27	.83
18	I feel confident when I speak in my English class.	3.00	.69
22	I don't feel pressure to prepare very well for English class.	2.62	.75
24	I feel very self-conscious about speaking the English language in front of other students.	3.42	.64
26	I feel more tense and nervous in my English class than in my other classes.	2.92	.98
27	I get nervous and confused when I am speaking in my English class.	3.31	.84
28	When I'm on my way to language class, I feel very sure and relaxed.	2.73	.78
29	I get nervous when I don't understand every word the English teacher says.	3.50	.81
30	I feel overwhelmed by the number of rules you have to learn to speak English language.	3.15	.88
32	I would probably feel comfortable around native speakers of the English language.	2.77	.99

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

The learner-participants in the No Treatment group agreed that they experienced communicative apprehension at the beginning of the semester and the highest six individual items were item 1, item 4, item 9, item 29, item 12 and item 27. Items 1, 9 and 29 are as the items for the Treatment group and the two different items are in relation to the learners themselves and towards the language teachers. The learner-participants in the No Treatment group worried in case they did not understand what the language teacher said in English language and at the same time they could be confused with the sentences they said in English language.

Table 4-11 summarises the eleven items of fear of negative evaluation for the No Treatment group. The learner-participants indicated anxiety towards negative evaluation and the items with the five highest mean values were item 33, item 7, item 23, item 16 and item 15. Surprisingly, these items are exactly the same as items identified for learner-participants from the Treatment group.

Table 4-11
Descriptive statistics for Fear of negative evaluation items

	Statements	Mean	S. D.
3	I tremble when I know that I am going to be called on in the English language class.	3.34	.80
7	I keep thinking that the other students are better at English language than I am.	3.77	.71
13	It embarrasses me to volunteer answers in my English language class.	3.23	.95
15	I get upset when I do not understand what the teacher is correcting.	3.35	.89

Statements		Mean	S. D.
16	Even if I am well prepared for the English language class, I feel anxious about it.	3.46	.86
17	I often feel like not going to my English language class.	2.50	1.14
20	I can feel my heart pounding when I am going to be called on in English language class.	3.00	.85
23	I always feel that the other students speak English language better than I do.	3.77	.51
25	English language class moves so quickly that I worry about getting left behind.	3.15	.97
31	I am afraid that the other students will laugh at me when I speak English language.	3.00	1.06
33	I get nervous when the English language teacher asks questions which I have not prepared in advance.	3.85	.83

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

Table 4-12 presents the five items for test anxiety indicated by the learner-participants in the No Treatment group. The learner-participants were not found to experience test anxiety except for item 10 that was found to be affecting the learner-participants the most. This finding is unanticipated which is the same as leaner-participants from the Treatment group.

Table 4-12
Descriptive statistics for Test anxiety items

Statements		Mean	S.D.
2	I don't worry about making mistakes in the English language class.	2.73	.87
8	I am usually at ease during tests in my English language class.	2.65	.80
10	I worry about the consequences of failing my English language class.	3.62	.90
19	I am afraid that my English language teacher is ready to correct every mistake I make.	2.69	1.09
21	The more I study for an English language test, the more confused I get.	2.92	.89

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

Table 4-13 presents the results of the independent samples t-test used to assess whether the Treatment group (n = 50) and No Treatment group (n = 26) were similar on levels of English language anxiety at the beginning of the semester.

Table 4-13
Independent samples t-test between Treatment group and No Treatment group

	Group	Mean	S. D.	t	df	p
English language anxiety	Treatment	2.98	.39	-1.83	74	.07
	No Treatment	3.16	.39	-1.84		

Communicative apprehension	Treatment	2.93	.41	-1.91	74	.06
	No Treatment	3.12	.41	-1.92		
Fear of negative evaluation	Treatment	3.12	.47	-1.64	74	.11
	No Treatment	3.31	.49	-1.61		
Test anxiety	Treatment	2.84	.49	-.67	74	.51
	No Treatment	2.92	.50	-.66		

The t-tests for differences between the groups are not statistically significant, confirming that the learner-participants from the Treatment group and No Treatment group were similar in anxiety levels at the beginning of the semester.

In order to answer research question 1 on page 11, statistical analyses were performed on each of the demographic factors represented in Table 4-2 and Table 4-3. It is to identify if any of these factors are associated with the level of English language anxiety of the Malaysian undergraduate learners.

4.3.2.3 Gender and ELCAS

Table 4-14 records the independent samples t-tests between male and female learners for the pooled Treatment and No Treatment groups on ELCAS and its three components.

Table 4-14
Independent samples t-tests between genders

	Gender	N	Mean	S. D.	t	df	p
English language anxiety	Male	38	2.97	.44	-1.58	74	.12
	Female	**38**	**3.11**	.34			
Communicative apprehension	Male	38	2.94	.45	-1.26	74	.21
	Female	38	3.06	.39			
Fear of negative evaluation	Male	38	3.13	.52	-1.08	74	.28
	Female	**38**	**3.25**	.44			
Test anxiety	Male	**38**	**2.74**	.52	-2.48	74	.02
	Female	**38**	**3.01**	.42			

In all cases, the Levene's test is non-significant; thus equal variances are assumed. Comparing the mean values between the male learners (n = 38) and the female learners (n = 38), it is found that the t-test is not statistically significant for English language anxiety, communicative apprehension and fear of negative evaluation. However, the difference is statistically significant for test anxiety, with the test anxiety of the male learners (M = 2.74, S. D. = .52) lower than for the female learners (M = 3-01, S. D. =.42), t (74) = -2.48, p = .02, two-tailed, d = 0.57 indicating a medium effect size.

4.3.2.4 Ethnicity and ELCAS – Treatment group

The sample size for Indian and other ethnicities was small; therefore, Table 4-15 presents the comparison between Malay and Chinese learners from the Treatment group.

Table 4-15
Independent samples t-test for Treatment group between ethnicity groups

	Ethnic	N	Mean	S. D.	t	df	p
English language anxiety	Malay	31	3.05	.41	1.21	44	.24
	Chinese	15	2.89	.38			
Communicative apprehension	Malay	31	3.02	.43	1.50	44	.14
	Chinese	15	2.82	.41			
Fear of negative evaluation	Malay	31	3.17	.46	.55	44	.58
	Chinese	15	3.08	.52			
Test anxiety	Malay	31	2.88	.50	.96	44	.34
	Chinese	15	2.73	.37			

An independent samples t-test was used to compare the means of English language anxiety, communicative apprehension, fear of negative evaluation and test anxiety reported by Malay learners (n = 31) and the Chinese learners (n = 15) in the Treatment group. The Levene's test is non-significant; thus equal variances are assumed. The t-tests were not statistically significant for English language anxiety in general and for the specific components of language anxiety - communicative apprehension, fear of negative evaluation and test anxiety.

4.3.2.5 Malay learners and ELCAS

The learner-participants in the No Treatment group comprised Malays only; thus -Table 4-16 presents the independent samples t-tests analysed on the Malays from both Treatment and No Treatment groups.

Table 4-16
Independent samples t-test of Malay learners

	Group	n	Mean	S. D.	t	df	p
English language anxiety	Treatment	31	3.05	.41	-1.04	55	.30
	No Treatment	26	3.16	.39			
Communicative apprehension	Treatment	31	3.02	.43	-.99	55	.33
	No Treatment	26	3.12	.42			
Fear of negative evaluation	Treatment	31	3.18	.46	-1.14	55	.26
	No Treatment	26	3.31	.49			
Test anxiety	Treatment	31	2.88	.51	-.29	55	.77
	No Treatment	26	2.92	.42			

The Levene's test is non-significant; thus equal variances are assumed. The t-tests on the differences between Malay learners in the Treatment group (n = 31) and Malay learners in the No Treatment group (n = 26) are not statistically significant for English language anxiety, communicative apprehension, fear of negative evaluation and test anxiety.

4.3.2.6 Age and ELCAS

Table 4-16 presents independent samples t-tests between the two age groups for the pooled Treatment and No Treatment groups. The learner-participants aged 19, 22, 23 and 24 were small in number; hence, for the subsequent statistical analysis they were regrouped into 20 years old and less (aged 19 and 20) and 21 years old and more (aged 21, 22, 23 and 24 and more).

Table 4-17
Independent samples t-test between age 20 or less and 21 or more

	Age (years)	Mean	S. D.	t	df	p
English language anxiety	≤20	3.02	.35	-.57	54	.57
	≥21	3.07	.36			
Communicative apprehension	≤20	2.97	.42	-.78	54	.44
	≥21	3.04	.43			
Fear of negative evaluation	≤21	3.19	.44	.02	54	.98
	≥20	3.19	.34			
Test anxiety	≤20	2.83	.36	-.84	54	.40
	≥21	2.93	.41			

The Levene's test is non-significant; thus equal variances are assumed. The t-tests for differences between learner-participants aged 20 and less (n = 47) and learner-participants aged 21 and more (n = 19) are not statistically significant for English language anxiety in general and for the specific components of language anxiety – communicative apprehension, fear of negative evaluation and test anxiety.

4.3.2.7 First language and ELCAS

Table 4-18 presents the one-way between groups analysis of variance (ANOVA) of English language anxiety and its components against first languages for the pooled Treatment and No Treatment groups. Since the number of Tamil speakers and other languages is small, both of these groups were combined as 'Others' for the corresponding statistical analyses.

Table 4-18
ANOVA between first languages of learners

	First language	n	Mean	S. D.	F	p
English language anxiety	Malay	31	3.05	.41	1.21	.31
	Mandarin	14	2.90	.39		
	Others	5	2.81	.25		
Communicative apprehension	Malay	31	3.02	.43	1.98	.15
	Mandarin	14	2.84	.42		
	Others	5	2.68	.26		
Fear of negative evaluation	Malay	31	3.17	.46	.48	.62
	Mandarin	14	3.08	.53		
	Others	5	2.96	.34		
Test anxiety	Malay	31	2.88	.50	.41	.67
	Mandarin	14	2.74	.38		
	Others	5	2.88	.39		

The ANOVA results are not statistically significant, indicating that the English language anxiety, communicative apprehension, fear of negative evaluation and test anxiety of the learner-participants are not influenced by the first languages – Malay, Mandarin, Tamil and others.

4.3.2.8 School location and ELCAS

Table 4-19 presents the independent samples t-tests between the two school locations for the pooled Treatment and No Treatment groups. The means of ELCAS and its three components were calculated between the learner-participants who attended their last schools in urban areas (n = 46) with those who attended their last schools in rural areas (n = 30).

Table 4-19
Independent samples t-test between locations of last schools

	Location	N	Mean	S. D.	t	df	p
English language anxiety	Urban	46	3.01	.39	.72	74	. 47
	Rural	30	3.08	.42			
Communicative apprehension	Urban	46	2.96	.41	-.87	74	.39
	Rural	30	3.05	.44			
Fear of negative evaluation	Urban	46	3.15	.49	-.81	74	.42
	Rural	30	3.24	.48			
Test anxiety	Urban	46	2.89	.45	-.45	74	.66
	Rural	30	2.84	.55			

The Levene's test is non-significant; thus equal variances are assumed. The t-tests are not statistically significant for ELCAS and the specific components of language anxiety – communicative apprehension, fear of negative evaluation and test anxiety.

4.3.2.9 Experience of English speaking countries and ELCAS

Table 4-20 presents the independent samples t-tests between the participants who have visited English speaking countries (n = 11) and those who have not (n = 65) for the pooled Treatment group and No Treatment group.

Table 4-20
Independent samples t-tests between have visited and have not visited English speaking countries

	Visit	N	Mean	S. D.	t	df	p
English language anxiety	Yes	11	3.01	.49	-.25	74	.81
	No	65	3.05	.39			
Communicative apprehension	Yes	11	2.85	.47	-1.26	74	.21
	No	65	3.02	.43			
Fear of negative evaluation	Yes	11	3.31	.61	-.89	74	.38
	No	65	3.17	.46			
Test anxiety	Yes	11	2.93	.53	.41	74	.68
	No	65	2.86	.43			

The Levene's test is non-significant; thus equal variances are assumed. The t-tests are not statistically significant for English language anxiety in general and the specific components of language anxiety − communicative apprehension, fear of negative evaluation and test anxiety.

4.3.2.10 English language proficiency and ELCAS

Table 4-21 summarises the SPM English language results. For easier representation of the results, 1A and 2A are categorised under A, 3B and 4B are under B, 5C and 6C are under C, and finally 7D under D.

Table 4-21
Number and percentages SPM English language results of Treatment and No Treatment groups

Group	SPM English language grade	Descriptor	n	%
Treatment	A	Distinction	22	44.0
	B		21	42.0
	C	Credit	3	6.0
	D	Pass	4	8.0
No Treatment	A	Distinction	6	23.1
	B		9	34.6
	C	Credit	11	42.3

SPM = Sijil Pelajaran Malaysia

Table 4-22 presents the one-way between groups analysis of variance (ANOVA) of ELCAS and its components according to SPM English language results for the pooled Treatment and No Treatment groups. There were only 4 learner-participants who achieved grade D; thus the grade was not taken into account.

Table 4-22
ANOVA for SPM English language results

	SPM English language grade	n	Mean	S. D.	F	p
English language anxiety	A	28	2.91	.36	3.04	.05
	B	30	3.07	.41		
	C	14	3.21	.39		
Communicative apprehension	A	28	2.85	.36	3.31	.04
	B	30	3.05	.45		
	C	14	3.07	.44		
Fear of negative evaluation	A	28	3.24	.44	1.69	.19
	B	30	3.34	.45		
	C	14	3.34	.45		
Test anxiety	A	28	2.78	.53	2.29	.11
	B	30	2.81	.42		
	C	14	3.10	.49		

SPM = Sijil Pelajaran Malaysia

The ANOVA is statistically significant for communicative apprehension, indicating that communicative apprehension was influenced by the learner-participants' SPM English language results, $F (2, 69) = 3.31$, $p = .04$, $\eta^2 = .09$. However, the difference is not statistically significant for English language anxiety in general, and fear of negative evaluation as well as test anxiety, specifically.

The other assessment that determined the English language proficiency of the Malaysian undergraduate learners is the MUET results. With reference to the demographic information for the Treatment group in Table 4-2, six learners achieved band 4 and this number is too small for further statistical analysis. Thus, in the subsequent analysis, learner-participants are compared between those who achieved band 2 against band 3.
Table 4-23 presents the independent samples t-tests between learner-participants who achieved band 2 ($n = 34$) and those who achieved band 3 ($n = 35$) on MUET for the pooled Treatment group and No Treatment group.

Table 4-23

Independent samples t-test between learners of band 2 and band 3 of MUET

	MUET results	n	Mean	S. D.	t	df	P
English language anxiety	Band 3	35	3.07	.38	-.03	67	.97
	Band 2	34	3.07	.41			
Communicative apprehension	Band 3	35	3.04	.42	.03	67	.98
	Band 2	34	3.04	.40			
Fear of negative evaluation	Band 3	35	3.23	.41	-.36	67	.72
	Band 2	34	3.19	.51			
Test anxiety	Band 3	35	2.85	. 49	.50	67	.61
	Band 2	34	2.91	.50			

MUET = Malaysian University English Test, Band 2 = Limited user, Band 3 = Modest user

The Levene's test is non-significant; thus equal variances are assumed. The t-tests are not statistically significant for English language anxiety in general and the three specific language anxiety components – communicative apprehension, fear of negative evaluation and test anxiety.

To summarise the demographic findings, the learners in the Treatment and No Treatment group have no difference on their general English language anxiety. The significant differences between them were identified only on the gender for test anxiety and SPM English language results for communicative apprehension.

4.3.3 Ownership of mobile phones

All 50 learners from the Treatment group owned mobile phones. Similarly, all 26 learners from the No Treatment group owned mobile phones. Figure 4-1 illustrates the learner-participants who owned either one or two mobile phones.
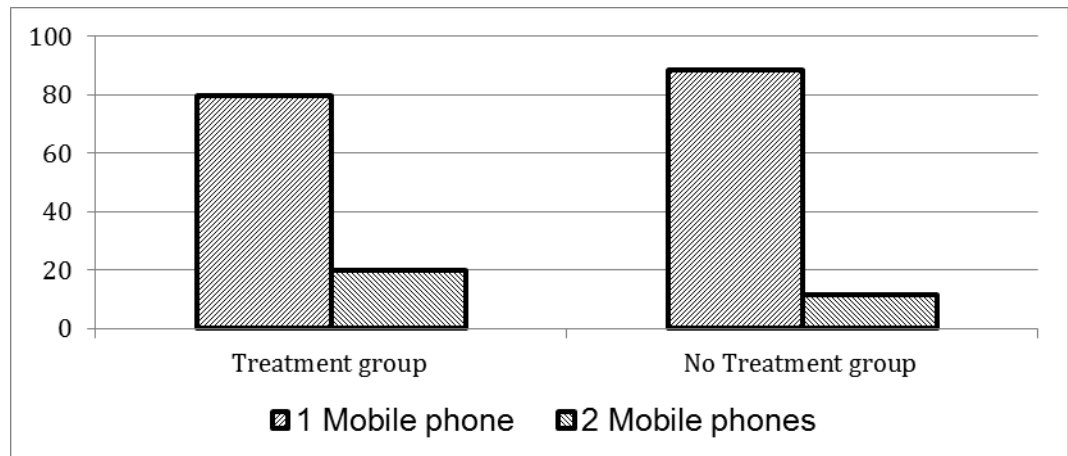
Figure 4-1. Mobile phones owned by participants

Most of the learners from both Treatment and No Treatment groups owned one mobile phone. A fifth of the learners from the Treatment group owned two mobile phones whilst approximately a tenth of the learners from the No Treatment group owned two mobile phones. None owned more than two mobile phones.

The three top brand names of the first mobile phones owned by the participants were Sony Erickson (38.9%), Nokia (36.4%) and Samsung (15.7%).

4.4 Post-test data

4.4.1 Treatment group

Table 4-24 presents the descriptive statistics on ELCAS and its components – communicative apprehension, fear of negative evaluation and test anxiety of the Treatment group.

Table 4-24
Post-test Anxiety Levels of Treatment group (n = 50)

	Mean	S.D.
English language anxiety	2.70	.44
Communicative apprehension	2.74	.44
Fear of negative evaluation	2.61	.64
Test anxiety	2.78	.41

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

The mean score on ELCAS at the end of the semester is on the disagree continuum of the scale, indicating that the learner-participants disagreed that they were experiencing language anxiety. Similarly, the mean value for each of the ELCAS components is in the disagree region of the scale, indicating the learner-participants disagreed about experiencing communicative apprehension, fear of negative evaluation and test anxiety at the end of the semester. Based on the results, test anxiety is the main component that contributed to the ELCAS followed by the communicative apprehension component.

The Treatment group was introduced to the use of mobile phones during the course of learning. In Section B of the post-test questionnaire the learner-participants were required to self-assess their language activities using their mobile phones. In order to answer the research question 2 on page 11, Table 4-25 presents the descriptive statistics of the four language activities using mobile phones. The ranges of the frequency were from Never to Daily.

Table 4-25
Percentage distribution of using mobile phones (n = 50)

	Never	A few times a month	Once a week	A few times a week	Daily	Mean	S. D.
	%	%	%	%	%		
Download lesson contents	5.3	19.7	13.2	47.4	14.5	3.46	1.12
Attempt language exercises	27.6	32.9	19.7	17.1	2.6	2.34	1.14
Download learning resources	2.6	15.8	22.4	47.4	11.8	3.50	.99
Refer to dictionary	9.2	18.4	19.7	40.8	11.8	3.28	1.17

Note: 1 = Never; 2 – A few times a month; 3 = Once a week; 4 = A few times a week; 5 = Daily

In response to the activities the learner-participants did using their mobile phones, the three highest mean values were for downloading learning contents, downloading learning resources and referring to dictionary. The mean values implied that the learner-participants did these activities between once a week to daily. These findings suggest that the learner-participants attempted these activities on their mobile phones and found doing these activities on their mobile phones convenient to them. With reference to both Table 4-24 and Table 4-25, it can be deduced that the use of mobile phones during the course

of the English oral interaction course has helped the learners to overcome their English language anxiety in general and its three components.

Section B of the post-test questionnaire for the Treatment group also required the learner-participants to evaluate their experience towards learning the English oral interaction course using mobile phones. Table 4-26 provides the descriptive analysis of the six items about the experiences of the learner-participants from the Treatment group during the course of learning using mobile phones.

Table 4-26
Descriptive statistics on items learning using mobile phones (n = 50)

	N	SD	D	A	SA	Mean	S. D.
I am interested to use mobile phone for learning	50	0	5	38	7	3.04	.49
I accessed the course Blogspot using my mobile phone	50	0	33	16	1	2.36	.53
I searched for extra learning resources on the Internet using my mobile phone	50	0	28	20	2	2.48	.58
I am excited to use my mobile phone for language learning	50	0	2	38	10	3.16	.47
I am prepared to learn English outside class using my mobile phone	50	0	16	26	8	2.84	.68
I am confident to use my mobile phone to learn English anytime	50	0	22	26	2	2. 60	.57

Note: 1 = SD (Strongly disagree); 2 = D (Disagree); 3 = A (Agree); 4 = SA (Strongly agree)

Four of the six statements (mean values greater than 2.5) indicated the positive experience of the learner-participants towards integrating mobile phones during their learning in the English oral interaction course. The learner-participants were found not to have accessed to the course Blogspot as regularly as expected. This could be due to the time at when the teacher-researcher decided to use the alternative medium after she discovered the learning management system (LMS) of the university was not mobile-friendly. Similarly, the learner-participants did not regularly use their mobile phones to search for extra learning resources on the Internet perhaps indicating that they had insufficient time to explore the function, or they may have found reading from the mobile phones inconvenient or they would need to incur additional expenses for using the Internet.

The bivariate Pearson's product-moment correlation coefficient was run to determine the relationship between the attitudes of the learner-participants in the Treatment group towards using mobile phones for language learning and

the ELCAS. There was a negative insignificant correlation between the attitudes and ELCAS, indicating that the more positive the attitude of the learner-participants are towards the use of mobile phones for language learning the lower the anxiety level is expected.

4.4.2 No Treatment group

Table 4-27 presents the post-test results of the English classroom anxiety and its three components of the No Treatment group. Compared to the Treatment group (see Table 4-24), the learner-participants from the No Treatment group recorded higher levels for English language anxiety in general and its specific components. The two components that mainly contribute to the English language anxiety level were communicative apprehension and fear of negative evaluation.

Table 4-27
Post-test Anxiety Levels of No Treatment group (n = 26)

	Mean	S.D.
English language anxiety	3.16	.59
Communicative apprehension	3.19	.62
Fear of negative evaluation	3.17	.63
Test anxiety	3.03	.67

Note: 1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree

4.5 Pre- and Post-tests

This section presents the comparisons of data between the pre- and post-tests for the Treatment group and No Treatment group. It then presents the course assessments results of the Treatment group and No Treatment group, respectively. The measure of oral interaction skills before the integration of mobile phones is with reference to MUET for the learner-participants' English language proficiency; whilst the measures after the integration of mobile phones are based on the two course assessments selected for the study, role play and mock interview as described in Section 3.4.1.2.

4.5.1 ELCAS and its components

Paired samples t-tests were used to assess the differences between the pre-test and post-test scores of ELCAS and its three components for the Treatment and No Treatment groups. The results are presented in Table 4-28 and Table 4-29, respectively.

Table 4-28
Paired samples t-test for Treatment group (n = 50)

		Mean	**S. D.**	**t**	**df**	**p**
English language anxiety	Pre-test	2.98	.39	3.30	49	.00
	Post-test	2.70	.44			
Communicative apprehension	Pre-test	2.93	.41	2.38	49	.02
	Post-test	2.74	.44			
Fear of negative evaluation	Pre-test	3.12	.47	4.26	49	.00
	Post-test	2.61	.64			
Test anxiety	Pre-test	2.84	.49	.73	49	.47
	Post-test	2.78	.41			

The Treatment group mean scores recorded statistically significant decreases from pre-test to post-test for English language anxiety, $t(49) = 3.3$, $p < .01$, communicative apprehension, $t(49) = 2.38$, $p = .02$, and fear of negative evaluation, $t(49) = 4.26$, $p < .01$. The mean score for test anxiety also decreased but the difference is not statistically significant.

Table 4-29
Paired samples t-test for No Treatment group (n = 26)

		Mean	**S. D.**	**t**	**df**	**p**
English language anxiety	Pre-test	3.16	.38	-.02	25	.99
	Post-test	3.16	.59			
Communicative apprehension	Pre-test	3.12	.41	-.49	25	.63
	Post-test	3.19	.62			
Fear of negative evaluation	Pre-test	3.31	.49	1.01	25	.32
	Post-test	3.17	.63			
Test anxiety	Pre-test	2.92	.50	-.67	25	.51
	Post-test	3.03	.67			

The No Treatment group mean scores recorded an equal value for pre- and post-test for English language anxiety, a higher post-test score for communicative apprehension, a lower post-test score for fear of negative evaluation, and a higher post-test score for test anxiety. The differences in the mean scores for ELCAS and its components are not statistically significant. Figure 4-2 illustrates the graphs of the pre-test and post-test scores of both the Treatment and No Treatment groups for ELCAS as well as its three components – communicative apprehension, fear of negative evaluation and test anxiety.
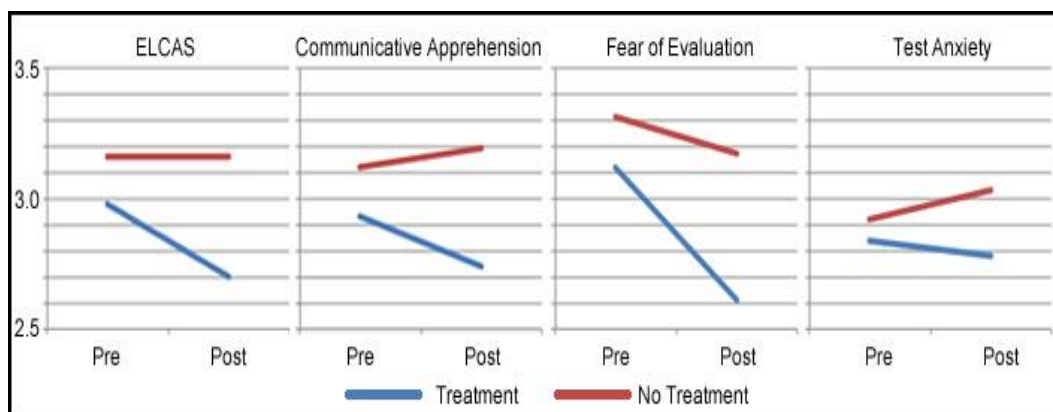
Figure 4-2. Graphs representing English language anxiety and its components of Treatment and No Treatment groups

4.5.2 Course assessments

The results of both course assessments - role play and mock interview – administered to the learner-participants are presented in Appendix M and Appendix N, respectively. The pre-test marks are based on the MUET results presented as bands. The bands were converted according to Oral Interaction descriptors of the English for Academic Purpose (EAP) Placement Testing. Moderator 1 and moderator 2 referred to the Oral Interaction descriptors of the EAP Placement Testing in assessing the performance of the learner-participants.

In order to address research questions 3 outlined on page 11, that is the effect of integrating mobile phones oral interaction skills, data were based on the course assessments by comparing the English language results before and after the intervention. The hypothesis of the research is that the lower the anxiety level the better the performance on oral interaction of the learners.

The subsequent tables present the percentage distributions of the learner-participants according to their achievement in their English oral interaction course assessments. For both the Treatment and No Treatment groups, the English language results at the beginning of the semester are based on the learner-participants' MUET results which are compared to the assessments results of the role play and mock interview, respectively.

4.5.2.1 Treatment group

4.5.2.1.1 Role play

Table 4-30
Percentage distribution of learners on role play (n = 50)

	Beginner	Elementary	Intermediate	Upper Intermediate	Advanced
Pre-intervention (MUET)	0%	32%	60%	8%	0%
Post-intervention (Role play)	0%	0%	0%	46%	54%

Table 4-30 presents the percentage of learners from the Treatment group on their role play assessment based on their performances before and after integrating mobile phones during the English oral interaction course. At the beginning of the semester, the learner-participants were categorised as Elementary, Intermediate and Upper Intermediate; and at the end of the semester, the learner-participants progressed to Upper intermediate and Advanced categories. This progress is further illustrated in Figure 4-3.
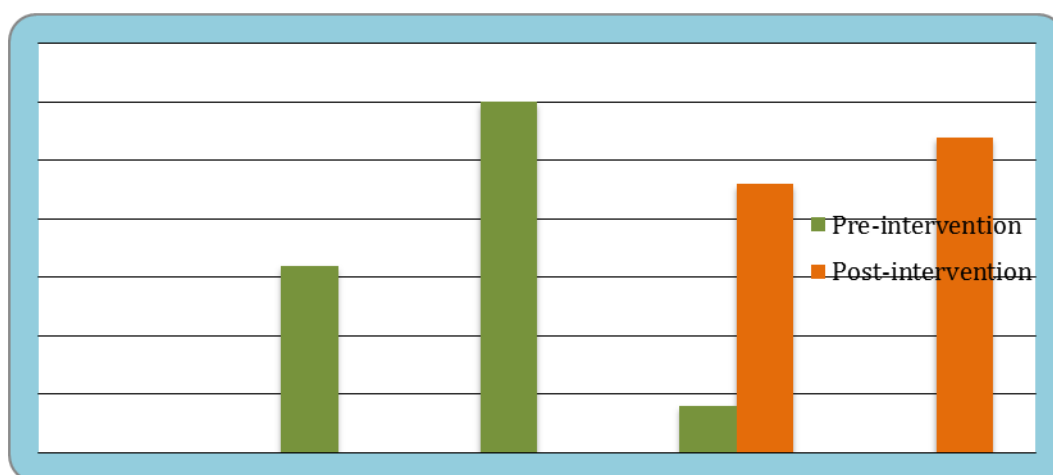
Figure 4-3. Bar graphs of English language levels of Treatment group before and after intervention for role play

The chi-square test of contingencies was calculated to assess whether both skills – recording own voice and recording informal conversations – had influenced the learner-participants' role play assessment. The test is not statistically significant, indicating that there were improvements in the role play performance but the learner-participants may not have had sufficiently

extended exposure time to the skills related to the use of the mobile phones for there to have been a significant difference.

4.5.2.1.2 Mock interview

Table 4-31
Percentage distribution of learners on mock interview (n = 50)

	Beginner	Elementary	Intermediate	Upper Intermediate	Advanced
Pre-intervention (MUET)	0%	32%	60%	8%	0%
Post-intervention (Mock interview)	0%	0%	0%	42%	58%

Table 4-31 presents the English language levels of the learner-participants from the Treatment group on the mock interview course assessment before and after integrating mobile phones during the course of learning. At the beginning of the semester, the learner-participants were under the categories of Elementary, Intermediate and Upper Intermediate. At the end of the semester, the learner-participants progressed to Upper intermediate and Advanced levels. Figure 4-4 illustrates the progress.
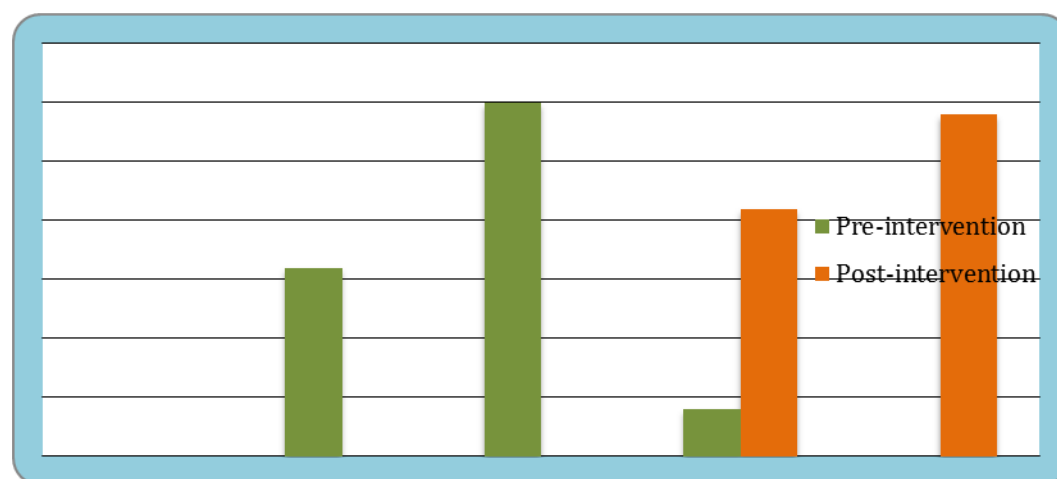
Figure 4-4. Bar graphs of English language levels of Treatment group before and after intervention for mock interview

The chi-square test of contingencies was calculated to assess whether both skills – recording own voice and recording informal conversations – had influenced the learner-participants' mock interview assessment. The test is not

statistically significant, implying that similar to the role play performance, even though the learner-participants demonstrated an improvement in mock interview performance, the learner-participants may not have had sufficiently extended exposure time to the skills related to the use of the mobile phones for there to have been a significant difference.

4.5.2.2 No Treatment group

The subsequent two tables present the English language levels of the learner-participants from the No Treatment group in their role play and mock interview course assessment.

4.5.2.2.1 Role play

Table 4-32
Percentage distribution of learners on role play (n = 26)

	Beginner	Elementary	Intermediate	Upper Intermediate	Advanced
Pre-intervention (MUET)	3.8%	88.5%	7.7%	0	0
Post-intervention (Role play)	0	0	0	46.2%	53.8%

Table 4-32 summarises the English language levels of the learner-participants from the No Treatment group from Beginner, Elementary and Intermediate levels at the beginning of the semester, to Upper intermediate and Advanced levels at the end of the semester. Figure 4-5 illustrates the improvement.
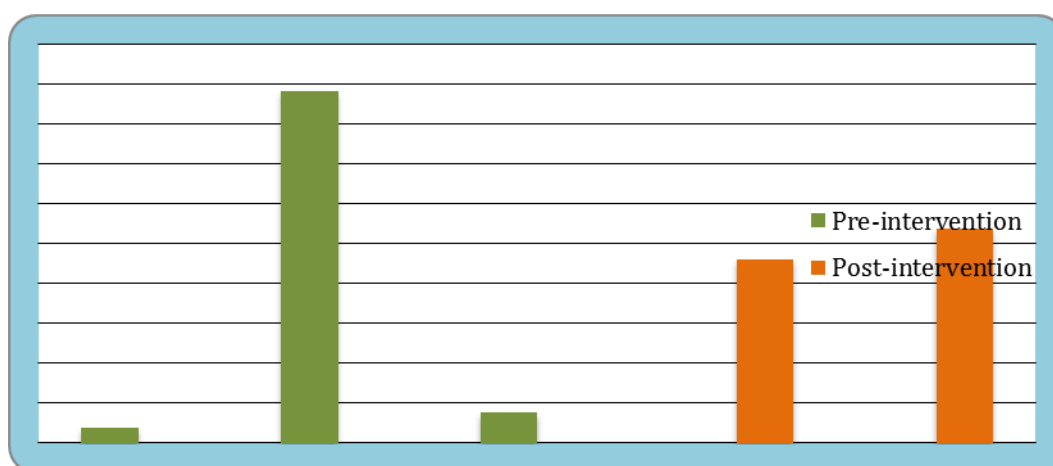
Figure 4-5. Bar graphs of English language levels of No Treatment group for role play

Table 4-33
Percentage distribution of learners on mock interview (n = 26)

	Beginner	**Elementary**	**Intermediate**	**Upper Intermediate**	**Advanced**
Pre-intervention (MUET)	3.8%	88.5%	7.7%	0%	0
Post-intervention (Mock interview)	0	0	3.8%	42.3%	53.8%

Table 4-33 summarises the mock interview performance of learner-participants from the No Treatment group at the beginning and end of the semester. At the beginning of the semester, they were the Beginner, Elementary and Intermediate levels and improved to Intermediate, Upper intermediate and Advanced levels at the end of the semester.

4.6 Chapter summary

This chapter has demonstrated that ELCAS is a reliable instrument to be used in the study. Based on the pre-test analysis, from the three components of ELCAS, fear of negative evaluation contributed the most to English language anxiety level of Malaysian undergraduate learners. Learner-participants from both the Treatment and No Treatment groups were similar on their English language anxiety level at the beginning of the semester. The post-test analysis revealed that the Treatment group disagreed about experiencing English language anxiety in contrast to the No Treatment group who experienced slight level of English language anxiety. The paired-samples t-test for the Treatment group showed significant decreases between the pre- and post-tests for ELCAS, communicative apprehension and fear of negative evaluation.

CHAPTER 5: RESULTS: QUALITATIVE DATA

I believe in innovation and the way to get innovation is to fund research and you will learn the basic facts – Bill Gates

This chapter presents data from the qualitative research instruments including observation, reflective journals and focus group interviews. The data are presented descriptively according to the learners' concerns on language anxiety in Section 5.1, the teacher's support to enhance English language learning in Section 5.2, the additional learning instruction suggested by the learners for meaningful learning to occur in Section 0, and finally the experience of using mobile phones by the learners in Section 5.4. As described in Section 3.1, pragmatism is the philosophical worldview for this study; thus, the qualitative data described in this chapter should enable the researcher to provide more depth and more insight into the quantitative data presented in Chapter 4.

5.1 Learners' concerns

In order to support the research question 2 on page 11, the subsequent section illustrates the reasons that the learners experienced in relation to language anxiety. The reasons were compiled from all the three data sources before classifying them into the following themes. The themes were decided on the basis of the reasons the learners highlighted.

5.1.1 Communicative apprehension

Based on the literature, communicative apprehension is associated with the learners' fear of communicating with other people. The fear leads the learners to having difficulty to communicate in the target language, understand others as well as make themselves understood. What could be the barriers to Malaysian learners to interact in English language with other people? When asked if they would start a conversation in English with strangers, three from the twelve learners commented that

> "I will not communicate with the person that I don't know unless the person begins first." (Journal excerpt, C, R6)

> "No, I will not interact in English with anyone I don't know because I won't know what to say and I am afraid or shy." (Journal excerpt, C, R12)

"No, because I am quite shy to talk with strangers." (Journal excerpt, C, R10)

Other learners mentioned their willingness to communicate in English language based on own personal beliefs.

"For me there're many benefits if I try to speak in English. I shouldn't be shy to speak in English even with the person we don't know. I can just begin with anything simple and improve from there. I can practise first with my family members and friends. I may not feel comfortable the first time, but it'll be fun to speak in English. I am sure my confidence level will automatically increase." (Journal excerpt, C, R1)

"I am not worried to communicate in English to strangers. They don't know me and I don't know them." (Journal excerpt, C, R2)

"I may communicate in English even though I don't know the person because if I think about it, it won't embarrass me if I made mistakes in English since the person doesn't know me and we may not meet again in future." (Journal excerpt, C, R8)

"Yes, I would because we don't know each other's English proficiency level." (Journal excerpt, C, R9)

"No, I would not communicate in English but I am happy to do it if I know it is good and necessary for me." (Journal excerpt, C, R10)

The most mentioned problem by the learners was confidence. Confidence is an aggregated emotional feeling; Malaysian learners do not have the confidence to interact in the English language despite of learning the language since year 1 in the national school or year 3 in the vernacular school. Without confidence, learners tend not to participate in the learning process, they hesitate to respond when asked and teachers cannot expect active learning in the classroom. Many of the learners who realise the importance of English language perceived interacting in the language as necessary in order to develop their confidence level. Some of the positive responses on confidence are

"Many of us are afraid to speak in English because we're not confident of ourselves. We're afraid of making mistakes and don't know how to express ourselves." (Journal excerpt, C, R1)

"What is important to communicate in English is confident level. If our confident level is high, we are easy to communicate with other people even though they are strangers." (Journal excerpt, C, R4)

"Communicating with others in English will help me to develop my confidence level." (Journal excerpt, C, R5)

"I have a little confidence to communicate with any person that I don't know but I really want to improve my communication skill." (Journal excerpt, C, R7)

"I think through practising I will develop my confidence level, improve my skills and I will learn a lot on how to socialise besides getting the experience to communicate with others in English." (Journal excerpt, C, R11)

"I don't have the confidence to speak in the language especially in front of others." (Journal excerpt, C, R12)

Experiencing communicative apprehension makes the learners ponder upon their future careers. They were asked if they would consider jobs that require less communication or otherwise.

"I notice ability to interact in English language is an advantage. Thus, I would like to involve myself in a career that requires everyone to speak English fluently." (Journal excerpt, C, R1)

"For me, my job should be fun. It is hard to accept jobs that expect me to communicate in English as it needs a lot of confidence to use the language." (Journal excerpt, C, R4)

"This is an opportunity I should take. I can improve my proficiency by interacting with others in the work place and to improve my communication skill." (Journal excerpt, C, R6)

"I feel more comfortable to choose a job that requires less communication in English because this is not to embarrass myself." (Journal excerpt, C, R7)

"I know my English proficiency but if I don't take the challenges, when will I improve my communication skills in English." (Journal excerpt, C, R8)

"I will go for jobs that require less use of English. This is to avoid me being under pressure and I don't want to reveal my mistakes." (Journal excerpt, C, R10)

"I want to get new knowledge as I work. Even though I may experience communicative apprehension, I still want to learn from time to time. Thus, I must learn to interact in English. "(Journal excerpt, C, R11)

"If I accepted jobs that use English a little or not at all, how can I improve my English? If I interact less in English I may not be able to express my ideas in relation to the job if the company uses English as the medium of instruction." (Journal excerpt, C, R12)

In summary, confidence is a gradual process and learners who experience anxiety would still have low confidence level. Fear in using the target language can make second language (L2) learners experience mental block preventing them from expressing in the target language. Nevertheless, some learners perceive that it is necessary for them to interact in the English language in order to alleviate the feeling of fear using the language but develop their confidence level at the same time. Regular practice in interacting in the English language will develop L2 learners' English language competency in speaking.

5.1.2 Fear of negative evaluation

The second construct of foreign language anxiety is fear of negative evaluation. Formal learning of L2 happens in classroom defined as "a social context to which learners bring themselves and their past experiences in which they establish certain relationships and attempt to participate and engage in tasks in ways that best fit their social needs" (Jeon-Ellis et al., 2005, p. 123) . The word 'social' in the definition refers to the learning that happens together with other people. The phrase 'bring themselves and their past experiences' refers to their current state of learning is the result of previous learning. The phrase 'attempt to participate and engage in tasks in ways that best fit their social needs' refers to the hard work and struggle to participate in learning. Thus, second language learners have the tendency to be worried of how others view them and at the same time would be worried of evaluative situations and the possibility of being negatively evaluated. Second language learners view that they may not be 'native-like' speakers but they can be competent in the language. Therefore, they do not agree of being evaluated even though in second language contexts English tests are quite the norm.

Some of the forty learners expressed their worry towards interacting in English language as

"It's difficult to make listeners understand what I am saying. I always think that other people will laugh at me when I speak to them." (Journal excerpt, C, R1)

"I have the fear to communicate in English with my classmates and English teachers. "(Journal excerpt, C, R3)

"I fear communicating in English with my lecturer and friends as I may make mistakes in grammar and word choice. "(Journal excerpt, C, R6)

"I feel English is so difficult to master. I am afraid to speak to my teacher and friends. I know a few vocabularies so I have difficulty to understand what they say in English. (Journal excerpt, C, R7)

"I fear when communicating in English with my teacher and classmates. I have limited vocabulary and low confidence level. "(Journal excerpt, C, R8)

"I feel unsure with the words I used in English when communicating with my teacher and classmates." (Journal excerpt, C, R9)

"I worry on my grammar when I have to communicate and I realise I have difficulty to express my ideas and elaborate on my points." (Journal excerpt, C, R10)

"I am afraid if my friends will laugh at me if I make mistakes in grammar" (Journal excerpt, C, R11)

"Sometimes, I have difficulty to understand what others say in English. I also do not have confidence to use English." (Journal excerpt, C, R12)

"I'm afraid I'll make mistake when I talk to my classmates and my English teacher because my English is not good." (Journal excerpt, C, R13)

"I am afraid my mistakes are obvious." (Journal excerpt, E, R1)

"I am afraid that I don't understand the meaning and message." (Journal excerpt, E, R2)

"I am not confident with my pronunciation and grammar. My vocabulary is limited." (Journal excerpt, E, R3)

"I don't want to make mistakes in case they will laugh at me." (Journal excerpt, E, R6)

"I have the problem to say words beginning with 'R' and I remember I had difficulty to say the word 'Ruler' that all my classmates laughed at me." (Journal excerpt, E, R9)

"I fear to speak with my English teacher and friends in case I don't speak English fluently and they will laugh at me." (Journal excerpt, E, R12)

"I have fear on pronunciation, grammar and spelling." (Journal excerpt, E, R15)

"If I chose wrong words, others will not understand me." (Journal excerpt, E, R19)

Fear of negative evaluation experienced by the learners lead to negative consequences on the learning. Four of the learners commented that

"Sometimes, I don't feel like going to my English class because I know don't speak English well." (Journal excerpt, C, R1)

"I have purposely missed English class afraid to be criticised by the teachers for not understanding English. Every time English teacher asks in English I always have nothing to respond." (Journal excerpt, C, R6)

"Interview assessment is done without the presence of the class instructor." (Journal excerpt, E1, R12)

"Any assessments are done without other class members." (Journal excerpt, E1, R12)

"I am not really good in English so I always have fear coming to the class." (Journal excerpt, E2, R8)

However, some learners believe that they should be less worried about making mistakes but attempt to interact in English language which is an approach to boost their confidence levels. According to the learners,

"I need to keep away from negative feeling but think positive that I can speak English." (Journal excerpt, E1, R9)

"I must remove my negative attitude." (Journal excerpt, E1, R8)

"I need to speak in English more with friends, so I can be more confident." (Journal excerpt, C, 3)

Nevertheless, Malaysian learners seem to be aware of their lack of linguistic knowledge. Their problem is only on their concern of being incompetence to interact in English language. Seven of the suggestions obtained from the two intact groups include

"I need to practise speaking in English daily. I need to read English newspaper and additional materials in English. I need to speak in English with friends. (Journal excerpt, E1, R1)

"I need to practise more in groups." (Journal excerpt, E1, R2)

"I need to practise more often with group members." (Journal excerpt, E1, R10)

"We should interact with each other outside class." (Journal excerpt, E1, C4)

"It is good if we use English to communicate with our friends because it can make us become more confident." (Journal excerpt, C, R2)

"We should speak in English language with my friends." (Journal excerpt, C, R15)

"We should use English in our daily life." (Journal excerpt, C, R20)

The learners realised the need for them to use English language to interact with their friends in the classroom and outside the classroom as an opportunity to practise and to improve in the language. Five of the learners mentioned that personally

"I need my friends to speak with me in English to improve my speaking fluency," (Journal excerpt, C, 3)

"I also can improve my communication skills when I work in groups." (Journal excerpt, C, R4)

"I need to speak English more with my friends so I can be more confident." (Journal excerpt, C, R7)

"I need to practise speaking in English. Peers are important to help us in speaking." (Journal excerpt, C, R11)

"I practised communicating in the English language in front of mirrors to see my facial expression and performance." (Journal excerpt, C, R30)

Furthermore, the Malay learners agreed that speaking in the Malay language with family members or friends was common and it was the language choice spoken at home.

"In my whole life I never speak in English with my family. Every day I speak in Malay with them and my friend." (Journal excerpt, C, R4)

"Even though it has been 11 years I learn English language, I still haven't mastered the language. I rarely used this language at home." (Journal excerpt, C, R7)

"From childhood, I've talked in one language only which is the Malay because it's my mother tongue. That's why I'm not good in English." (Journal excerpt, C, R11)

As a consequence, they have not used English language extensively other than in the classroom. This personal attitude gives them awareness of their vocabulary knowledge of the target which consequently makes them feel less confidence whenever they need to interact in the language. The less use of English language too gives them the other problem that is they will be thinking in the Malay language, before translating the Malay phrase or sentences into the English language. Their limited interaction in English language adds to their anxiety level.

After one semester of taking the English oral interaction course the learners were asked to report their confidence level. Many agreed that they had managed to boost their confidence level though they had not quite acquired the language. Eight from eleven learners commented that

"Yes, I think my confidence level to speak in the English language has increased. Even though I know I am not really good in the language but I still want to try to speak in English to people around me." (Journal excerpt, C, R1)

"My confidence level has increased. We have done many assignments that require us to speak in English language for the English oral course." (Journal excerpt, C, R2)

"Yes, I think my confidence level to use English in communication has increased because nowadays I use more English to speak with my friends." (Journal excerpt, C, R3)

"Yes, I feel my confidence level to communicate in English has increased because I have learnt many ways to improve my communication skill." Journal excerpt, C, R4)

"I have gained much experience in speaking that has helped me a lot to gain my confidence level. "Journal excerpt, C, R5)

"I have continued practising communicating in English with friends. I also have read aloud English materials to practise." Journal excerpt, C, R7)

"Yes, my confidence level to interact in English has increase. I have learnt interacting in English in practical forms; I have done assignments and presentations that require me to communicate effectively. "(Journal excerpt, C, R10)

"Yes, I have learnt a lot in this course. The course taught me to be more confidence in interacting in English. "Journal excerpt, C, R11)

5.1.3 Test anxiety

Learning L2 accounts for performance evaluation within an academic context (Horwitz et al., 1986). This means that L2 learners would experience another situation of anxiety when they are assessed on their competency and performance using the target language that might lead to negative motivation and fear of failure. They struggle to acquire the target language but ability to use the target language is their ultimate objective.

The learners also feared of having no ideas to communicate in the English language with friends when assigned pair or group tasks, not performing well

in the mock interview assessment, and making mistakes when communicating in English language, if suddenly they lost ideas on what to respond, failed to speak fluently in English language or lost confidence. The consequences of these fears would affect their assessment results in general. A few of the personal responses in relation to their fear of failure include

"I was nervous during the assessment that I was unable to think right." (Journal excerpt, C, R11)

"I fear if I lose my focus for being too nervous. I fear I am unable to respond to the questions spontaneously." (Journal excerpt, C, R15)

"I fear to communicate in English with my classmates or English teacher. This is because I don't have good knowledge of vocabulary." (Journal excerpt, C, R16)

"I fear that I don't have good ideas to present in the interview." (Journal excerpt, C, R18)

"I was totally nervous to respond to the interviewer and had difficulty to describe myself when asked." (Journal excerpt, C, R20)

"I fear if I can't pass the English examination." (Journal excerpt, C, R21)

"I felt a little nervous when asked by the interviewer and was unable to think right." (Journal excerpt, C, R22)

"I could not remember the points to answer the questions that I went blank during the interview." (Journal excerpt, C, R23)

"I had problem to explain and was nervous during the assessment." (Journal excerpt, C, R 24)

"I watched a few videos on interview to prepare myself before the assessment." (Journal excerpt, C, R27)

"I fear that I could not speak fluently and suddenly lose confidence." (Journal excerpt, C, 29)

"I felt nervous and that was a problem for me to speak fluently." (Journal excerpt, E, R23)

"Fear if I don't get good results." (Journal excerpt, E, 29)

5.2 Teachers' support

The learners realised the importance of exposing them to the English language speaking environment. Similarly, they thought of their need to be given extra practice in interaction and exercises on the English grammar component. This is to prepare them for various course assessments in class practice before the actual assessment. Further in the classroom learning, the learners suggested the teacher to provide comments on their performance and offer suggestions for improvement.

"We like to get feedback from the teacher after reviewing the recording together." (Journal excerpt, E1, R20)

"The teacher can point out our weaknesses." (Journal excerpt, E1, R16)

"Teacher can provide more coaching sessions for the assigned activities." (Journal excerpt, E1, R18)

"The teacher can give some suggestions and point out corrections for me to get good results." (Journal excerpt, C, R1)

"The teacher can tell us what we need to do to improve our performance and give us second chance of assessment." (Journal excerpt, C, R16)

Both personal and academic supports from the English teacher are crucial to second language learners when two of the learners responded that

"Our class teacher is supportive, cool and kind which makes me want to come to class." (Journal excerpt, C, 20)

"I still have fear but when I saw my lecturer was soft-spoken and corrected my mistakes in a decent way, I have slowly lost the fear." (Journal excerpt, C, R21)

"I need support from peers and class instructor." (Journal excerpt, E1, R19)

"I need support and words of encouragement from lecturers." (Journal excerpt, E1, R23)

5.3 Learning instruction

The following section presents the experience of the Malaysian undergraduate learners of learning the English language. The information is to further associate their opinions to the demographic factors identified as contributing to the language anxiety.

5.3.1 Learning environment

Even though the teacher is concerned about completing the course syllabus, the learners suggested for language learning process to be less stressful. There is a constant need to make English language courses as engaging and interactive as possible to get active participation from learners.

"We can have a short break during class and watch movies."
(Journal excerpt, C, R2)

"Acting activities will make us less fear because we practise speaking in front of others." (Journal excerpt, E2, R8)

"To make the class enjoyable and relax, for instance, competition against groups" (Journal excerpt, C, R12)

"Listening to English songs and watching movies." (Journal excerpt, C, R14)

"Have games in English, quizzes for us to compete." (Journal excerpt, C, R16)

Next, teachers should make use of visual aids in teaching too as to supplement course material.

"PowerPoint slides are interesting." (Journal excerpt, C, R1)

"We could watch television or video or English programmes."
(Journal excerpt, C, R8)

Furthermore, the learners suggested that teachers discuss learning errors in class in order to create an interactive learning environment. Not only teachers but learners can be encouraged to share stories in class.

"Teachers can discuss our mistakes in the classroom." (Journal excerpt, C, R2)

"We can share interesting stories in class. " (Journal excerpt, C, R3)

Teachers should make an effort to understand and know the needs of their learners. Learners perceived the flexibility of using their mother tongue when learning English language in the classroom, that is

"We should use our own language, may be 20%, and 80% of English language. It is better than using 100% English language only." (Journal excerpt, C, R7)

Physical layout in the classroom is worth considering too, where the furniture should be arranged allowing teachers and learners to move around easily. One of them commented that

"Seating arrangement and furniture in class should be friendlier." (Journal excerpt, C, R12)

Learning languages does not have to be in classrooms but anywhere that is conducive for learning to take place. For instance,

"To have the English language class outside the classroom." (Journal excerpt, E2, R5)

"We would like the course assessments to be done outside based on the situations assigned for the role play." (Journal excerpt, E1, R14)

"We need exposure to English speaking environment so we become confident to use English in our daily life." (Journal excerpt, E, R22)

5.3.2 Cooperative learning

The learners explained the importance of cooperation among group members for role play and mock interview assessments. Cooperation of and commitment from group members were the main elements required to achieve group goals for assigned tasks successfully After being assigned group tasks, the learners thought that they should practise regularly in groups.

"We need cooperation and commitment from peers. Peers can give positive feedback and advise to improve my oral interaction skills." (Journal excerpt, E1, R8)

"I want my friends to give their full commitment to complete the assessments." (Journal excerpt, C, R3)

The learners could have had discussion with friends. Group members should be supporting each other and the learners had hope for extra role play situations assigned by the English oral course instructor for them to practise.

"The teacher can provide a number of example situations on role play for use to practise with group members."   (Journal excerpt, E, R13)

"I feel more motivated when doing group discussion. We can exchange ideas and learn from each other." (Journal excerpt, C, R5)

"Peers are important to help us in speaking. Peers who are proficient in English can support and help us." (Journal excerpt, C, R12)

"I wished my friends could offer me support and give comments for me to improve." (Journal excerpt, C, R31)

"I am open to positive feedback, criticisms and responses from friends." (Journal excerpt, E1, R3)

"There should be cooperation from peers." (Journal excerpt, E, R10)

"Peers should support and speak in English." (Journal excerpt, E, R16)

5.3.3 Supplementary resources

Reading printed materials in English language is another approach to add to the vocabulary. Reading materials in the target language such as newspaper add the language input. Nevertheless, the language inputs ought to be used in any productive skills – writing and communication – for the learning to be meaningful.

Second language learners would need ideas in order to have extended conversations. In addition, the learners also wrote in their journals that they were watching English movies without subtitles to test language proficiency or with subtitles to increase vocabulary knowledge.

> "I watch English movies without subtitles." (Journal excerpt, E1, R18)

A learner justified that he should have done more research on the assigned tasks before performing the tasks for assessment in order to increase his confidence level.

> "I should have referred to sources including websites to improve my content for the oral assessment." (Journal excerpt, E1, R15)

The learners were then asked to reflect on their performance in the mock interview. Some of the strategies they considered to raise their confidence level to perform in the mock interview include practising extensively with group members, revising the interview skills and watching recorded videos of job interviews. Other than that, the learners commented that they should have had regular communication in English language with friends, found ways to improve vocabulary knowledge, improved on body language, had better cooperation with group members in terms of planning a number of rehearsals before the final assessment and had supportive group members, elaborated their views, and improved their confidence level to be able to respond in the English language.

5.4 The use of mobile phones

The learner-participants invited to the focus group interviews were asked about their understanding of the definitions of smart phones. All of them mentioned the recent technology of mobile phones with the internet access capability.

> "We can connect to the internet with Wi-Fi." (Interview excerpt, S2)

> "We can connect to the internet and can download more applications." (Interview excerpt, C4)

"Mobile phones have multiple functions, not only sending messages and receiving calls." (Interview excerpt, C20)

"Using smart phones you can access the internet and able to get information quickly." (Interview excerpt, S11)

"Compare with the earlier models, smart phones are more advanced. We can download lots of applications and Dictionary. We can read documents on the smart phones." (Interview excerpt, S2)

According to the learners, if they have smart phones it means that they can connect to the internet anytime and

"It means convenience to get the latest information." (Interview excerpt, S12)

"I can search for information and entertainment." (Interview excerpt, C17)

"Smart phones make my life easier because I can check anywhere and anytime." (Interview excerpt, C8)

In general, all the learners owned at least a mobile phone and used it for various purposes. Examples for personal purposes include

"I use mine for making calls, checking calendar, setting alarm clock, playing games, recording both audio and video and take photos." (Interview excerpt, R3)

"I send messages to my family, friends and sister to tell my daily activities and weekend plan. Other than that, I use it to call my parents, check calendar for any personal or family events, important dates and family members' birth dates." (Interview excerpt, R9)

Similarly, the learners use the mobile phone for learning purposes such as

"I use Google translate because I don't know the definition of the English words so I will translate from Mandarin to English." (Interview excerpt, C17)

"I'll use Google translate to look for meanings of words. I also learn Korean that is my own initiative." (Interview excerpt, S12)

"I watched the BBC website, for example meals around the world. I started to mimic the speaker and try to speak." (Interview excerpt, S13)

The following findings were gathered from the qualitative data sources of the Treatment group as to answer research question 1 on page 11. The discussion of the subsequent findings also includes the researcher's observation notes to describe the process of the intervention.

During the first in-class meeting with the Treatment group, the teacher-researcher informed the learners to regularly check the supplementary materials for each of the topics learnt in the course that she had uploaded onto the learning management system of the university. They were encouraged to use their mobile phones for instant access to the learning management system provided they could connect to the internet. The task was not tried out in the classroom due to unavailability of Wi-Fi connection. When the teacher-researcher met the learner-participants in the following class, she was informed by the learners that the learning management system of the university was not mobile-friendly.

"Got to know from students that the LMS is not mobile friendly. Will check with CADE." (Observation note, 25.2.2012)

The teacher-researcher confirmed the problem of accessing the learning management system on mobile phones with the administrative staff of the Centre for the Academic Development of the university. Thus, the teacher-researcher had to think of an alternative platform to upload the supplementary materials to ensure the learner-participants would still be able to use their mobile phones for language learning.

The teacher-researcher discussed the problem with her supervisor and decided to create a blog called 'Let's interact!' and uploaded the same supplementary materials onto the blog.

"Have created a BlogSpot. Name … 'Let's Interact!' Next class inform students of the URL." (Observation note, 16.3.2012)

In regards to the pronunciation test, the first oral course assessment scheduled within Weeks 5 and 6 of the semester (see Table 3-2), the teacher-researcher allowed the learners to record their assigned tasks in class using mobile phones.

> "More conversation practice in class. Learners were allowed to record their practice using mobile phones." (Observation note, 22.3.2012)

Then, they were asked to reflect on their experience of using the mobile phones as a tool in language learning by using the audio recording feature on mobile phones to record their pronunciation practice and commented that

> "I practised saying the words aloud that I was not sure of saying. Then, I recorded the pronunciation and listened to the recording." (Journal excerpt, E2, R5)

Learners who owned smart phones were able to check the online dictionary enabling them to search for definitions of words instantly. Some learners learn saying the words with reference to the phonetic symbols. Another learner did more than listening to the words from the online dictionary.

> "I used the online dictionary to check for pronunciation. I listened a few times then recorded my pronunciation on my mobile phone and compared the recorded pronunciation with the online dictionary." (Journal excerpt, E2, R7)

On the other hand, learners who did not own smart phones listened to the CD enclosed with the Oxford dictionary they bought. The learners either listened to the CD on how to pronounce the words then learnt saying the words only or did more by recording the words practised using the audio recording device on the mobile phones. A learner who recorded the pronunciation on his laptop had a bad experience when

> "I recorded using my laptop but failed to listen back to the recording. It was very poor compared to the recording I did on my mobile phone." (Journal excerpt, E2, R12)

Though there were only five learners who used their mobile phones to do pronunciation practice they expressed their satisfaction on using them.

"In general, I find it useful to prepare myself using my mobile phone." (Journal excerpt, E2, R8)

"Not only the words practice, I also recorded my reading of 2 paragraphs on my mobile phone. I practised saying the words by referring to the phonetic symbols." (Journal excerpt, E2, R16)

On the other hand, eleven learners from the Treatment group reported not using the mobile phones to prepare for the pronunciation test. Among the reasons raised by the learners were that they were not familiar with connecting to the internet on mobile phones, the screen of mobile phones is smaller than computers, the mobile phones owned are not smart phones so they are not Internet-capable, they were not prepared to connect to the Internet for they need to pay additional cost, and finally the connection to the internet was slow.

As stated in Section 3.4.1.2, the teacher-researcher started using her iPad to record the learner-participants' classroom activities. The purpose was for her to familiarise with the technical aspects of the recording for reviewing purposes. For the subsequent classroom activities when the learner-participants were called to perform their classroom activities in front of the class, the teacher-researcher noticed that a few of the learner-participants involved passed their mobile phones to their classmates to record their performance. The teacher-researcher was interested to know the reason the learner-participants recorded their own activities and they responded that

"I will be able to view my own performance and learn to improve for other activities." (Observation note, 20.3.12)

"I never recorded video of my own learning, when I saw what you did I thought of trying the video recorder on my mobile phone." (Observation note, 20.3.12)

The teacher-researcher asked the focus groups about other personal devices they used to connect to the internet. Some of the responses included

"I own a laptop and use mobile broadband to connect to the internet. Sometimes at the faculty even though it is a Wi-Fi zone, the connection is slow. So, I prefer using my broadband to connect to the internet." (Interview excerpt, R2)

"I don't connect to the internet on my mobile phone. However, if I were to connect to the internet on my laptop, it would be long." (Interview extract, R6)

"When I connect to the internet on my laptop, the screen is wider than connecting on my mobile phones because not the whole page can be displayed on the small screen." (Interview extract, R6)

"I prefer using my laptop than mobile phone to connect to the internet as the screen is wider and the keyboard is easier to use. I can download something easily and save any documents." (Interview excerpt, R9)

As alternatives to using the mobile phones to aid language learning, the learners studied the sample tests given by the English language instructor, referred to the course module for phonetic symbols, revised the content in the course module and did the computer programme assigned to the English oral interaction course at the computer laboratory. Other learners practised with friends to pronounce the words by listening to each other. Others used the online dictionary on computers for the pronunciation practice. They just clicked on the icon of the dictionary to listen to the words before repeating the pronunciation. Other learners used their laptops to learn the pronunciation.

"I used my laptop to practise my pronunciation. It is fast to access the internet. I searched for any pronunciation exercises available on the website and referred to the dictionary. I listened many times for the pronunciation." (Journal excerpt, E2, R7)

They expressed their satisfaction of learning using their personal computers by stating that

"I prefer using my laptop and practise using the online dictionary. The sound from the computer is louder and clearer than from the mobile phone. I used my laptop to search for and listen to the words in the sample test papers being pronounced." (Journal excerpt, E2, R11)

In summary, this chapter extracts the qualitative results based on the research instruments used – observation notes, reflective journals and focus group interviews. The results have been thematically categorised. The next chapter will focus on the discussion of the research problem by supporting the quantitative results with the qualitative results.

CHAPTER 6: DISCUSSION

I am always ready to learn although I do not always like being taught. - Winston Churchill

This chapter presents a detailed analysis of key research findings presented in both Chapter 4 and Chapter 5, with reference to each of the research questions. The results of the study are also discussed in relation to previous research studies. Section, 6.1, discusses the factors that contribute to language anxiety experienced by Malaysian English language learners. The effectiveness of integrating the use of mobile phones in the English oral interaction classroom is discussed in Section 6.2 and Section 6.3.

6.1 Factors contributing to English language anxiety

One of the aims of this study was to identify the factors of language anxiety of the Malaysian first year undergraduate learners when learning an English language course namely, Oral Interaction Skills. The following research question was developed:

To what extent are demographic factors associated with language anxiety of Malaysian undergraduate learners?

6.1.1 English language classroom anxiety

Learners from the two intact groups were compared on their level of language anxiety at the beginning of the semester. Learners from the No Treatment group experienced higher English language anxiety, communicative apprehension and fear of negative evaluation than learners in the Treatment group but the differences between the groups were not statistically significant. These results indicate that learners from both groups who were from different course disciplines experienced similar levels of language anxiety and the individual components at the beginning of the semester. These findings suggest that both groups were comparable and worthy of further investigation in regards to receiving the intervention for the Treatment groups and traditional classroom teaching for the No Treatment group. Despite the different course disciplines, the learners experienced language anxiety towards learning English as a second language.

For both intact groups, fear of negative evaluation was found to be the most anxiety provoking component with mean values of 3.12 for the Treatment group and 3.31 for the No Treatment group. This finding is consistent with those of Cui (2011), Ferdous (2012) and Yamat and Bidabadi (2012) who found that fear of negative evaluation had the highest mean value among the components. This finding implies that Malaysian language learners are acutely sensitive to continuous evaluation by the language teachers or peer evaluation in some classroom learning. As a result, the learners are likely to be passive and reticent instead of actively participating in learning because they avoid being negatively evaluated. However, the current study did not replicate the finding that communicative apprehension was the most predominant anxiety component as was found in a study of English as a foreign language for English-major Iranian learners (Nahavandi & Mukundan, 2013).

Fear of negative evaluation was the most serious component found in Malaysian first year undergraduate learners. Their reflective journals reported the worry they had over being misunderstood by their English language teachers or peers as a result of not being proficient in English language. The learners raised their concerns over their inadequate knowledge on phonetics (sounds of language), morphology (study of word structure), grammar, syntax (study of sentence structure) and semantics (study of meaning). The learners also assessed that their peers were more proficient than them. All of these concerns led to the learners having low confidence about interacting in the target language. They worried if their peers would laugh at their mistakes, which would create an embarrassment to them. Fear of negative evaluation worsens when three of the learners mentioned their preference of not attending English language classes, which they considered as a way to preserve themselves. Nevertheless, the optimistic learners declared the need for them to believe in themselves that they were able to be fluent in the target language by developing their confidence level. The learners who commented that they had not interacted in the target language extensively favoured the value of working with their friends to practise the language not only in the classrooms but beyond the four-wall context. They should also frequently interact in the target language to overcome the feeling of inconvenience and fear.

At the end of the semester when asked about their confidence level, the learners agreed that they had developed their confidence level owing to the regular group discussions and in-class presentations. During the course, they had learnt tips to do pair work, group discussion and oral presentation. They realised that they had to work on the linguistic aspects of the language and consistently interact in the target language especially with friends.

The following sections will discuss the relationship between each of the demographic factors and language anxiety of Malaysian English language learners. The results presented are on the relationship between the variables collected at the beginning of the semester.

6.1.2 Gender

There were equal numbers of male and female learners for the pooled Treatment and No Treatment groups. The female learners experienced higher levels of English language anxiety, communicative apprehension and fear of negative evaluation than the male learners but the difference for each of these was not statistically significant. However, the difference between male and female learners on test anxiety was statistically significantly different at $p = .02$. The results imply that the female learners indicated higher test anxiety than the male learners. As pointed out earlier, since the internal consistency of the test anxiety is valued at .54, this result should be interpreted with caution.

The result of the English language learning anxiety is contrary to the findings by Awan et al. (2010), who found that male Pakistani English as foreign language learners were significantly more anxious than female learners. The current finding is also contrary to the earlier study by Capan (2012) on first year and second year Turkish undergraduate learners majoring in English. In that study, the comparison between the genders demonstrated significantly higher anxiety levels of male than the female learners. The results of the current study also differ from a study on Iranian learners studying English as a foreign language at an undergraduate level by Jafarigohar and Behrooznia (2012) where the female learners were found to be significantly more anxious than the male learners about reading in a foreign language. Similarly, female learners studying at the Department of English in the Republic of Yemen experienced significantly higher level of foreign language anxiety than the male learners (Ezzi, 2012). A comparison study was carried out in an Iranian context on English as foreign language learners situated in classrooms of mixed-gender and of single-gender (Mahmoodzadeh, 2013). The result found that the presence of opposite genders in a classroom was significantly anxiety-provoking for Iranian learners. The findings of the current study do not support the study by Park and French (2013) on Korean undergraduate learners. The result of the t-test indicated significantly higher language anxiety of female learners than the male learners.

The findings of the current study are consistent with those of Kamulzaman et al. (2013) who found no significant difference between male and female Malaysian gifted high school learners on English language anxiety in general, communicative apprehension and fear of negative evaluation. The current

study found a significant difference on test anxiety between the genders which is in contrast to the finding on the gifted Malaysian learners. The finding of the current study is in agreement with Khunnawut's (2011) findings which found no correlation between gender and English language anxiety in general. There are similarities between the findings of the current study with those of Jianhua and Yodkamlue's (2012) on first and second year learners from five colleges in China. The study reported that the general foreign language classroom anxiety was higher on the female than the male college learners. Likewise, an insignificant difference between male and female learners was also identified on English as foreign language learners in Iran (Nahavandi & Mukundan, 2013). For the study, Iranian female learners were more anxious towards English language anxiety than the male learners. The results of the current study corroborate the findings of a study on Iranian first year undergraduate learners. The study reported insignificant difference between male and female even though the male learners indicated higher communicative apprehension and test anxiety (Yamat & Bidabadi, 2012). On the other hand, the female learners in the study experienced higher levels of fear of negative evaluation. In China, high school male learners were higher than the female learners on anxiety levels for each component of English language, but the differences were insignificant (J. Cui, 2011).

6.1.3 Ethnic groups

Malaysian learners in higher education institutions are from various ethnic groups – Malay, Chinese, Indian and others. The Treatment group comprised these multiple ethnic groups though there were small numbers of Indian learners and other ethnic group learners. Thus, a comparison was calculated between the Malay and Chinese learners in terms of language anxiety. The differences were not statistically significantly different between the ethnic groups, indicating that despite membership of the ethnic groups, Malaysian first year undergraduate learners still experienced English language anxiety at the beginning of the semester.

The No Treatment group included Malay learners only; therefore, a comparison was made on the Malay learners from both the Treatment and No Treatment groups. Similar to the comparison between the different ethnic groups, the difference on the levels of English language anxiety in general and the specific components were not statistically significant.

In reviewing the literature, no studies were found on the association between language anxiety and ethnic groups. Therefore, this study is contributing a new variable that may have impact on language anxiety echoing the relevance of the study since "foreign language anxiety may vary in different cultural groups" (Horwitz, 2001). The findings on ethnicity as a factor that may

contribute to different language anxiety levels of the Malaysian learners argue that ethnicity groups did not have an influence on language anxiety. Malaysian learners learning English as a second language, regardless of ethnic groups, experienced English language anxiety.

6.1.4 Age

On the factor of age influencing language anxiety, the learners from both Treatment and No Treatment groups were regrouped to 20 years old and below, and 21 years old and above. The difference between both age groups was not statistically significant for English language anxiety in general and its three components.

The findings of the current study are in agreement with Ezzi's (2012) findings that learners aged 25 and more experienced insignificantly higher anxiety than learners aged 25 and less. A possible explanation for this might be that the older the learners the more self-conscious they become leading to "a strong element of unwillingness or embarrassment in attempting to produce the different sounds of another language" (Yule, 2014).

6.1.5 First language

Malaysian learners have acquired different first languages usually depending on the ethnic groups; thus, it is interesting to investigate if proficiency in first language has an impact on anxiety level. In this study, the different first language of the learners was found to have a statistically insignificant effect on English language anxiety in general and its components. A similar study was carried out assessing foreign language anxiety of undergraduate learners taking General English course in Iran (Nahavandi & Mukundan, 2013). The learners were proficient in different first languages namely Turkish and Persian; however, the authors made no attempt to differentiate the impact of the two different first languages of the Iranian learners on foreign language anxiety. Therefore, this study is contributing another new variable to the study on language anxiety.

6.1.6 Location of last schools

The study hypothesised that learners who attended their previous schools in urban areas would be less anxious taking into consideration the advantages those schools have in terms of the language learning laboratories and higher standard of living of the learners' families. Statistical analysis on this factor revealed that learners who attended their last schools in rural areas were more anxious towards English language anxiety in general including the individual

components of language anxiety than those who attended schools in urban areas. However, the difference between the learners was not statistically significant.

The results of the current study concur with the findings by Awan et al. (2010) where Pakistani English language learners from the rural background were more anxious than those from the urban background though the difference was not significant. The findings of the current study are also consistent with Piechurska-Kuciel (2012) who found language anxiety was higher for learners whose background was rural than learners whose background was urban. The study concluded that learners who attended schools in rural areas had limited exposure to the English language and received little support from the family to learn English language. These barriers led the learners to problems of adapting to the different cognitive and social demands of English language.

6.1.7 Visited English speaking countries

The study also hypothesised that opportunities for visiting English speaking countries and living in the native speaking culture can make the learners feel less anxious towards interacting in English language. From the total of 76 learner-participants, only 11 had visited English-speaking countries whilst 65 had not. As predicted, the learners who have not visited English-speaking countries experienced higher levels of English language anxiety in general. The difference between the learners who have visited and have not visited English speaking countries is not statistically significant on English language anxiety and its individual components.

6.1.8 English language proficiency

The next factor to assess the difference on language anxiety is the learners' English language proficiency determined by the two national examinations - *Sijil Pelajaran Malaysia* (SPM) English language results and Malaysian University English Test (MUET) results. For SPM, the learners who achieved the lowest English language grades, grade C, indicated the highest level of English language anxiety but the difference was not statistically significant. However, the learners who achieved grade C experienced the highest level of communication apprehension and the difference with learners who achieved grade A and grade B was statistically significant. The result indicates that the SPM grade is a factor that differentiates the communicative apprehension levels of Malaysian English language learners. Learners who achieved grade B and grade C experienced equal levels of fear of negative evaluation, which was higher than for learners who achieved grade A but the difference was not statistically significant. Learners who achieved grade C experienced the highest level of test anxiety but the difference was not significant. The present

findings in relation to SPM English language results contradict other research that found highly proficient learners had the highest anxiety, followed by low proficient and finally the intermediate proficient learners (Suwantarathip & Wichadee, 2010).

For MUET, the differences between learners who achieved band 2 (limited users) and band 3 (modest users) were not statistically significant on English language anxiety in general and the individual components. Learners sit for MUET examination as a prerequisite to apply to do undergraduate programmes at any of the public universities in Malaysia and Singapore.

6.2 The effectiveness of mobile phones to alleviate language anxiety

Another aim of the study was to explore the effectiveness of integrating mobile phones during language learning to alleviate language anxiety of Malaysian second language learners, which contributed to the second research question, as below:

How does the integration of mobile phones in the oral interaction course affect the language anxiety of Malaysian undergraduate learners?

To assess the effectiveness of the use of mobile phones to alleviate language anxiety, the anxiety levels were measured by comparing the pre-intervention and post-intervention scores for the learners from the Treatment group. The pre-intervention anxiety levels were higher than the post-intervention. The differences for English language anxiety, communicative apprehension and fear of negative evaluation were statistically significant. The results suggest that the integration of mobile phones for language learning purpose has been effective to alleviate English language anxiety in general, communicative apprehension and fear of negative evaluation. However, the difference on test anxiety was not statistically significant. The insignificant difference is believed to be attributed to the final examination of the Oral Interaction Course the learners were preparing during the administration of the post-test. The No Treatment group was not introduced to the intervention but was taught through standard face-to-face teaching. At the end of the semester, the English language anxiety level had not changed.

The result for the Treatment group is inconsistent with a study on two environments to measure fluency (Kessler, 2010). Given that speaking can heighten anxiety and anxiety negatively affects fluency, the study explored the observable influence of anxiety upon fluency to compare the differences between fluency of recordings produced in a laboratory setting against those produced using mobile devices. Forty learners enrolled in graduate level oral communication courses recorded audio journals on a weekly basis for their assignment. The audio journals were intended to serve as fluency building activities allowing the learners the freedom of talking about any topic they chose. The learners were allowed to choose either audio laboratory or MP3 player to record the journals. The preferred environment was using the MP3 player rather than the mobile phones and their comments included freedom to choose to work at a time and space that was convenient and comfortable for them. Anxiety was reduced by allowing learners to perform out-of-class self-access activities in an environment of their choice. As anxiety in speaking tasks was reduced, it appears that fluency increased.

In addition, the learners in the Treatment group self-assessed in the post-test survey questionnaire the activities they used on their mobile phones. The two most regular activities the learners did were downloading learning resources and referring to a dictionary. The use of mobile phones to check for meanings in an online dictionary was reported in one learner's journal writing. Other activities for which the learners from the Treatment group used their mobile phones were to access the BlogSpot of the course and search for extra learning resources on the Internet. It is somewhat surprising that the results imply that the learners were willing to negotiate on the costs of using mobile phone networks and Internet connections for the benefits of their learning (Burston, 2014). Furthermore, the results affirm that mobile phones are now "capable of pedagogically supporting virtually anything that can be done with a desk-bound PC" (Burston, 2014).

In view of the learners' perceptions towards the integration of mobile phones for language learning, they were excited to use mobile phones for language learning, they were prepared to learn English language outside the formal learning in classroom using mobile phones and finally they felt confident to use mobile phones to learn English language any time. It is apparent from these findings that learning augmented with mobile phones contributed to reduced English language anxiety level. Finally, the learners' positive perceptions towards the integration of mobile phones support the pedagogical approach of mobile language learning.

6.3 The effectiveness of integrating mobile phones to enhance oral interaction skills

The last research question designed for this study is:

To what extent has the integration of mobile phones enhanced oral interaction skills of Malaysian undergraduate learners?

The integration of mobile phones during the English oral interaction course took place with learners in the Treatment group. The pre-intervention English language results were obtained based on the MUET results of the learners in order to compare the results after the integration of the mobile phones. The first course assessment using the integration was role play. The in-built features on the mobile phones were the audio/video recording used to record and review their practices. The learners were assigned to present in pair or trio for the role play. An example of the situation is as given below:

Situation 4

Speaker A

One of your friends missed the first lecture for the day. You meet him/her later. Ask him/her what happened in the morning. Maintain the conversation through follow-up questions.

Speaker B

On your way to class from Taman Sri Serdang, you stopped to assist an accident victim. As a result, you missed the first class for the day. Your friend asks you what happened. Explain to him/her.

Before the integration, the learners from the Treatment group were categorised into three English language proficiency levels, namely Elementary (32%), Intermediate (60%) and Upper Intermediate (8%). At the end of the semester the learners' proficiency levels progressed to Upper Intermediate (46%) and Advanced (54%).

Similarly, at the beginning of the semester, the learners from the No Treatment group were categorised into three English language proficiency levels, namely Beginner (3.8%), Elementary (88.5%) and Intermediate (7.7%). At the end of the semester, they progressed to Upper Intermediate (46.2%) and Advanced (53.8%) levels. Even though the learners were not introduced to the use of mobile phones during the course of learning, they could have regular face-to-

face practices with their peers. At the same time, the learners were not limited to refer to the supplementary materials prescribed on the learning management system (LMS) of the university.

Learners from both groups demonstrated an improvement on their English language proficiency based on their performance on role play. However, the results of the Treatment group cannot be attributed to the use of mobile phones. This may be explained by the fact that the learners in the Treatment group technically started exploring their mobile phones in Week 5 and have not had sufficiently extended exposure time to the skills of using mobile phones for that use to have significantly influenced their learning.

The second course assessment using the integration of mobile phones was the mock interview assessed on Week 11. Like the role play assessment, the features of the mobile phones emphasised were the audio/video recording to record their practices as well as to review their practices. The learners were assigned to present in pair or trio for the mock interview. The assessment task for mock interview is as given below:

Mock interview

You are interested in a temporary job (part-time or full-time) during the long semester break. Select a job advertisement that you are interested in (the job advertisement selected should contain some job description and required qualification). Based on the chosen advertisement you are to:

a. make a list of attributes/skills that are relevant to the job.

b. write 5 possible relevant interview questions the interviewee may be asked for

   the selected position.

c. write appropriate responses to each question in (b).

d. write 3 questions an interviewee may ask at the job interview.

e. write appropriate responses to each question in (d).

In Week 11 when the learners from the Treatment group were assessed on the coursework, the learners' English language proficiency levels progressed to Upper Intermediate (42%) and Advanced (58%). Similarly, learners from the No Treatment group progressed to Intermediate (3.8%), Upper Intermediate (42.3%) and Advanced (53.8%). Similar to the role play, the learners from both groups demonstrated an improvement on their English language proficiency.

The results of both course assessments must be interpreted with caution because learners from the Treatment group have not had sufficient extended exposure time to the skills related to the use of the mobile phones in the current study. Therefore, this study has not been able to demonstrate the positive outcome of augmenting mobile phones to enhance production in oral interaction.

In summary, this chapter has focussed on the research questions outlined for this study. The discussions have summarised the quantitative results supported by the qualitative findings. Finally, the findings of the study were supported with findings from previous studies.

CHAPTER 7: CONCLUSIONS

*Learning is not attained by chance; it must be sought for with ardor and attended
to with diligence."* - Abigail Adams

This chapter begins by discussing the issues this study has not been able to address (Section 7.1) leading to recommendations for potential future studies (Section 7.2). Then, the implications as a result of this study are briefly discussed in Section 7.3. Finally, the chapter ends by drawing conclusions from the current study (Section 7.4).

7.1 Limitations of this study

A number of caveats need to be noted in regards to the present study. The first is related to the use of the online survey questionnaire as the main research instrument. It was designed using Qualtrics, an online tool. After it was launched the uniform resource locator (URL) was then required to be posted on the learning management system (LMS) of the university by individual language teachers. In order to facilitate that process the researcher volunteered to assist her 22 teaching colleagues who were assigned to teach the Oral Interaction Course. If the researcher did not assist in doing the task, there was a possibility of getting very low responses from the university learners. The task was a time consuming process for the researcher to make suitable time with the individual teachers.

Second, the researcher reminded each of the language teachers who taught the Oral Interaction Course to notify respective learning groups the URL of the pre-test questionnaire posted on the LMS. The researcher also suggested each of the language teachers to demonstrate to their respective classes the way to access the LMS. The number of the returned pre-test online questionnaires was approximately an eighth of the course population for the current semester. This result implied that the researcher had failed to sufficiently encourage the participation of her teaching colleagues in this study. Even though their participation was only for the verbal announcement to be made to their learners, the teaching colleagues may have thought the researcher had not fully acknowledged their participation. The responses expected was greater had the suggestions been taken by the language teachers since the enrolment of the course was approaching 2,000 every semester.

Third, the response to the pre-test online survey questionnaire was accessible for four weeks after the semester began. By the time the responses were retrieved from the online tool on the fifth week, the researcher who also acted

as the English teacher for the course, was already occupied with her teaching duty to both the Treatment and No Treatment groups. As a result, she was not able to immediately analyse the responses received from the pre-test online survey questionnaire. Due to this, the researcher was not able to assess the anxiety level of the learners prior to the intervention. Getting information on the current anxiety level of the learners would allow the researcher to identify the 'relevant' respondents for the focus group interviews that could be based on equivalent or different levels of anxiety. The identified respondents would be participating again in the post-test interviews.

Fourth, the post-test online survey questionnaire was administered at the end of the semester before the final examination week. Reflecting on the result of the post-test administered to both the Treatment and No Treatment groups, the language anxiety result may have been influenced by the learners' worry towards their final examination for the Oral Interaction Course. The post-test was not administered after the examination week in order to avoid unforseen technical problem specifically inability of the learners to access the LMS. The results are assumed to be different if the post-tests were administered after the examination week.

This study clearly showed the base data of the learners' English language proficiency was the Malaysian University English Test (MUET) results. MUET band score is the average score of the four language skills, namely listening, speaking, reading and writing, instead of using the speaking score only. The researcher was not able to assess the learners' oral interaction skills prior to the intervention, which would require extended time as well as aid of research assistants. Since the focus of the study was on the oral interaction skills, it would be more appropriate to know the current level of the learners' oral interaction skills to be compared with the results at the end of the semester.

As explained in section 3.5.3, the researcher initially planned to refer to MUET Speaking Assessment Criteria in assessing the oral interaction course assessments for the study. However, the researcher received the permission from the Malaysian Examination Syndicate later than expected duration that the researcher had to refer to alternative descriptor for the assessment. For future research and for reliability, it is best to use the same assessment descriptor before and after the intervention.

Seventh, the researcher got to know from the learners about the incompatibility of the LMS on mobile phones. By then the researcher had already uploaded the supplementary materials of the course topics onto the LMS. As a result, the use of mobile phones to access the supplementary course materials for the first five weeks was not successful. The learners had to use computers to get the supplementary materials. As an alternative, the researcher created a BlogSpot and uploaded the same supplementary materials

as the mobile learning denotes learning anywhere and anytime. If the mobile phones were compatible with the LMS, the learners would have commenced the mobile learning earlier. At the same time, the learners would have wider opportunity of accessing the learning materials on the mobile phone.

This first hand empirical research study observed the real use of mobile phones in the language classroom. This study has not delved into the recordings the learners from the Treatment group used their mobile phones outside the classroom. However, the learners were observed to have recorded their in-class practices. The learners seemed comfortable especially using the video recording feature; and the study would be extensive if the researcher how the learners progressed until the end of the recording.

The current study selected the learners on the basis of purposive sampling. The learners who enrolled in the Oral Interaction Skills Course may have achieved MUET band 1 and 2 or MUET band 3 and 4. The learners who achieved MUET band 1 and 2 should have passed the basic English language course, namely English for Academic Purpose before being eligible to enrol for the Oral Interaction Course. The learners who achieved MUET band 3 and 4 should have enrolled for Oral Interaction Course as their first English language course during their undergraduate programme. These two groups of learners would not have common experience of learning an English language course at a higher education institution (HEI). The study would yield different results if the learners were from the same MUET band.

The final limitation of the current study is the insufficient exposure time for learners to be comfortable with the skills to do their oral interaction practice using the mobile phones. As a result, all learners demonstrated an improvement on the performance of the course assessments though the study was not able to show any significant difference between those using mobile phones and those in the standard condition. If the learners had extended exposure time to use the mobile phones for the learning, the results are expected to be better proven.

7.2 Recommendations for future studies

As a consequence of the limitations discussed above, this study has raised many questions in need of further investigation. An online survey questionnaire is efficient and cost-saving enabling a wider range of participation. Future research might identify a better method or platform to disseminate the online survey to the general population more efficiently.

Future research may consider giving incentives or rewards for any kind of participation to signify appreciation from the researcher. Recognition of their participation may encourage and motivate potential participants to contribute to the study.

Future research should analyse pre-test responses in order to identify learners who have different anxiety levels, for example high, medium, and low anxiety level. On the basis of the research purpose, the researcher can select learners of equal proficiency to be the respondents for focus group interviews. The same learners should be interviewed again after the treatment before the end of the research. One of the purposes is to identify common anxiety problems on the basis of the different anxiety levels. In addition, this allows for closer observation of what the learners do when learning using mobile phones.

It is suggested that future empirical research on the use of mobile phones in the classroom should include video viewing of the work samples of the learners. This approach is believed to engage them in the learning by reviewing what they have done. The learners may be invited to share their experience with the language teacher and peers. Reciprocally, the language teacher and peers can offer feedback and suggestions to the learners to improve their performance. Showing the recordings of the learners to the class would demonstrate the effective use of the mobile phones relevant to the English oral interaction course.

This study suggests for future research to administer the post-test after the examination week in order to reduce the influence of the responses from the learners' fear towards the final examination. The post-test can be disseminated using any forms either online- or paper-based survey questionnaire though the former is acknowledged to be more efficient.

On an administrative matter, HEIs in Malaysia should consider making the LMS platform mobile-friendly. The high penetration of mobile device usage in Malaysia particularly among the undergraduate learners signifies the more popular use of mobile phones for the Internet Generation learners than computers. Consequently, the result of the current study suggests mobile learning should be designed and developed pedagogically and incorporating modular instruction and the dynamics of learning in building new learning processes via the mobile device while complementing the existing technologies.

Another recommendation for future study is to conduct the research in different settings to support or refute the results of this study. The results of the present study are confined to a specific English language skill. Hence, more data could be collected from other language skills such as reading and writing classes or content-based classes (e.g. science) in order to explore the

effectiveness of mobile phones for learning purposes. The results of the present study were obtained from first year undergraduate learners in a public higher education institution. Similar or different data could be collected from learners studying in private higher education institutions. The present study involved learners from Science and Engineering disciplines. Future study could be conducted with other interdisciplinary learners to gain better insights on how their background or context influences their language anxiety and the way they use their mobile phones for language learning.

The current study explored the use of mobile phones for English oral interaction skills specifically on the use of the audio/video features built in the mobile phones for recording purposes. Future research can look into other functional and valuable applications offered by mobile phones relevant for the language skills to be taught.

The final recommendation for any future study that intends to replicate the current study aiming to enhance oral interaction skills is that it should introduce the audio/video features of mobile phones from the first week of the semester. Learners should be given extended practice on these features until they feel comfortable to use them. They should be encouraged to share their practice in the classroom to engage them in the learning process and give them motivation. Sufficiently extended exposure time to the skills is believed to be able to demonstrate significant differences between the learners before and after intervention.

Methodologically, the current study adopted the mixed methods design. Future research can adopt a number of similar studies. The first suggestion is on a small number of learners from an intact group. The research should begin by finding out the current oral interaction skill as well as the current skills of using mobile phones of the learners before the intervention. The second suggestion is on two intact groups where the first group is given the intervention and the other group learns without the intervention. Similar to the first suggested study, assessment on the current oral interaction skills of both groups can be carried out at the beginning. The first group is also assessed on their current skills of using the mobile phones. Another assessment can be carried out at the end of the semester to determine the effectiveness of the intervention to the first group.

7.3 Implications of this study

The concern of the current study was based on the rise of unemployment rate among Malaysian graduates. One of the factors identified and highlighted in the local media is the English language communication skills of graduates. The poor communication skills and lack of English language command among

the graduates will make the Malaysian economy difficult to achieve international trade and be at par with globalisation. Aspiring to achieve the status of a developed country, Malaysia needs to leverage on its human capital including the local graduates.

Learning English language in non-English speaking countries is a challenge to the teachers as well as the learners. The teachers need to consistently remind their learners about the importance of being proficient in English language while attempting to use whatever means available surrounding them to deliver meaningful learning. The learners, on the other hand, usually have low confidence to interact in English language whether in the classrooms or outside. However, being less proficient in the target language is not a barrier to interact since the L2 learners can easily revert to the first. If these two situations continue to persist, the objective of producing competent learners in the English language is far from possible to achieve.

The Malaysian government supports the use of English language as a second language. Beyond the classroom context, there are printed media in English language. In addition, electronic media also often have programmes in English language. Even though formal written or verbal correspondence with the government is in Bahasa Malaysia, the national language, correspondence with and involving international expatriates is in English language. This situation illustrates the need for Malaysian learners to be proficient in the language.

In the Malaysian education system, English language is taught as other school subjects a few hours each week. The language is evaluated and this is a norm in Malaysian schools. The learners have the tendency to compare their examination results including English language with their peers. Indirectly, this practice causes the learners who have not performed well in the examination to accumulate a kind of emotional reaction in them making them become self-conscious and feel discomfort especially in the language learning classrooms. The older they get, the more self-conscious they become, leading to being unwilling to attempt to interact in English language. The learners begin to feel stressed, discomforted, unmotivated and fearful towards learning the target language. This situation is known as language anxiety. The situation affects the input stage, processing stage and output stage when learning the target language. Language anxiety directly influences the behaviour of the learners.

This study has identified that language anxiety exists among first year Malaysian undergraduate learners. Thus, it is fundamental for language teachers to identify their learners who are anxious in English language classrooms at the beginning of the semester. Next, it is also vital to assess their language anxiety level and to take necessary measures during the learning

process in order not to adversely affect the learners' achievement or performance.

The current study envisions the use of mobile phones to alleviate language anxiety and to enhance oral interaction skills. Mobile language learning is still a new pedagogical approach. However, the survey report on hand phone users among Malaysians identified that learners aged 20-24 formed the largest proportion that had attracted the use of mobile phones for the purpose of this study. This study has successfully demonstrated the effectiveness of augmenting the use of mobile phones for language learning purposes to alleviate language anxiety. The success can be associated with the learning activities the learners did on their mobile phones during the course of learning including downloading lesson contents, attempting language exercises and referring to a dictionary. These findings suggest the successful use of the mobile phones to assist individual learning needs, access resources and to learn anytime and anywhere.

Theoretically, the learning activities performed by the learners in this study were linked to constructivist and collaborative approaches. Learning is an active process; and according to constructivist theory learners actively construct new ideas or concepts based on their current and past knowledge. Furthermore, learners are responsible towards their own learning. Constructivist theory believes that learners actually learn when they construct knowledge, think and learn through experience. Collaborative learning promotes social interaction. With reference to the diagram of m-learning shown in Figure 2-1, the three basic elements for the m-learning approach are the learner, the technology and the location. The current study fulfilled this condition. The learning activities included individual task, pair work and group work. The capabilities of the mobile phones and their wide context of use contribute to their propensity to foster collaboration. Learners could share their recordings, which further enhanced interaction among themselves. Interaction in the target language is essential to develop confidence levels and improve language competency.

The study is a mixed approach design covering both quantitative and qualitative phases. By doing so it enabled the researcher to delve into the learners' personal problems of language anxiety. The mixed methods approach offered a strong non-linear emphasis as it was informed by inductive findings from qualitative analysis. Moreover, it provided the basis for triangulating these inductive findings with findings from the deductive analysis performed through a survey. The mixed method approach proved useful in providing a synthesized and reasoned method of investigation.

Methodologically, the means of collecting the quantitative data used an online tool, namely Qualtrics, to invite a wider participation than the paper-based questionnaire. The qualitative data was analysed using Nvivo, a software that records data obtained, besides enabling the recording and linking of ideas, searching and exploring the patterns of data and ideas before presenting the findings.

Treatment and No Treatment groups selected for the current study were examined for the real effect of this approach of enhancing performance in their oral interaction skills assessments. The findings suggest there is potential in using mobile phones to supplement classroom learning, specifically to enhance performance. Though it seems pedagogically beneficial, the study has not been able to demonstrate the significant difference due to insufficient extended exposure time to the related skills using the mobile phones.

It is reasonable to infer that provided the learners have acquired the skills to use their mobile phones for language learning purposes and feel comfortable with using them, language learning will extend into a seamless part of daily life. This empirical study introduced the use of mobile phones in the classroom. This is essential as learners need the basic exposure to use the mobile phones and may not be familiar with the relevant use. In order to be psychologically accepted, learners need to have the convenience of using the technology. Learners need extended time to discover the suitability of the technology for learning. Ultimately, learning will take place beyond the classrooms.

Even though the Malaysian school system does not allow the use of mobile phones on school grounds, the undergraduate learners in this study showed positive attitudes towards the mobile learning approach. The results of the study testify to learners' acceptance of the use of mobile phones in learning, indicating support and convenience in learning. The learners managed to alleviate their language anxiety at the end of the semester and at the same time showed engagement during the course of learning.

Pedagogically, these findings have implications for language teachers who in particular are interested in identifying current and suitable approaches to make the learning process more meaningful by integrating tools that are owned by and familiar to mobile generation learners. Mobile phones are increasingly and frequently used by learners and this study has demonstrated the possible integration.

7.4 Conclusion

The current study has explored the effectiveness of mobile phones in language learning context. The study was designed to determine the effectiveness of mobile phones on language anxiety and performance in oral interaction skills of first year undergraduate learners studying at a Malaysian public higher education institution. This study has demonstrated that language anxiety is a common phenomenon among Malaysian second language learners. In relation to the demographic factors, the learners experienced general English language anxiety regardless of genders, ethnic groups, age, first language, location of last secondary school, experience of visiting English speaking countries and English language proficiency.

This study has also shown the effectiveness of mobile phones in alleviating language anxiety. As demonstrated by learners in the Treatment group, their anxiety level was significantly reduced at the end of the semester. The learners indicated significant lower English language anxiety level in general, communicative apprehension and fear of negative evaluation. Test anxiety was also lower at the end of the semester but insignificantly different, assumed to be caused by the learners' fear towards the final examination.

The present study was also designed to investigate the effectiveness of mobile phones in enhancing performance of oral interaction. However, the study has not been able to demonstrate this research objective. It is believed that given sufficient extended exposure time to the skills related to the use of mobile phones, the learners would demonstrate a significant difference.

Given the paramount importance of technologies such as mobile devices in teaching and learning, Malaysian learning context needs to be prepared to embrace these new learning technologies. In the early twenties, many published studies on m-learning focused on perceptions of learners and teachers as well as their acceptance of mobile learning. The results were promising, albeit mixed results, as they highlighted positive perception. Following this phase, many published studies beyond 2010 have focussed on the practicality of mobile technology applications carried out in the real classroom situations. The key concept has been to provide training to learners on how to integrate mobile learning relevant to their language needs and use the mobile phone as their own learning tool in various ways. Mobile phones may have limitations but the mobile generation learners are already inventing ways to use their mobile phones to learn what they want to know. To a certain extent, mobile technology is already influencing how people learn.

In general, the findings of this study suggest the possibility of integrating mobile phones for language learning purposes. This study provides additional practical insights into the use of mobile phones in the Malaysian educational

context, particularly in HEIs. Integrating mobile phones in the English oral interaction course allows learners to explore its potential use for language learning, consequently for the learners to realise the extension of learning opportunities outside classroom at any place and at any time to their convenience. Finally, it needs to be emphasised that learning using technology alone is insufficient for successful language acquisition but the ever increasing capacity and functionality of mobile phones is offering new learning opportunities.

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APPENDIX A: EPU Consent Letter

UNIT PERANCANG EKONOMI
Economic Planning Unit
JABATAN PERDANA MENTERI
Prime Minister's Department
BLOK B5 & B6
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN
62502 PUTRAJAYA
MALAYSIA

EPU

Telefon : 603-8888 3333

Ruj. Tuan:
Your Ref.:

UPE: 40/200/19/2860

Ruj. Kami:
Our Ref.:

Tarikh:
Date:

7 Desember 2011

RAMIZA BINTI DARMI
5 TAME STREET
SOUTH TOOWOOMBA
QLD 4350
Email: ramizashafain@gmail.com

APPLICATION TO CONDUCT RESEARCH IN MALAYSIA

With reference to your application, I am pleased to inform you that your application to conduct research in Malaysia has been *approved* by the **Research Promotion and Co-Ordination Committee, Economic Planning Unit, Prime Minister's Department.** The details of the approval are as follows:

Researcher's name :   **RAMIZA BINTI DARMI**

Passport No. / I. C No: **710517-10-5320**

Nationality   :   **MALAYSIAN**

Title of Research   :   **"ENHANCING ORAL PRODUCTION SKILLS OF SECOND LANGUAGE LEARNERS USING MOBILE PHONES IN MALAYSIA"**

Period of Research Approved: **4 MONTHS**

2.   Please collect your Research Pass in person from the Economic Planning Unit, Prime Minister's Department, Parcel B, Level 4 Block B5, Federal Government Administrative Centre, 62502 Putrajaya and bring along two (2) passport size photographs. You are also required to comply with the rules and regulations stipulated from time to time by the agencies with which you have dealings in the conduct of your research.

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APPENDIX B: FBMK Consent Letter

UPM
UNIVERSITI PUTRA MALAYSIA

FAKULTI BAHASA MODEN DAN KOMUNIKASI
FACULTY OF MODERN LANGUAGES AND COMMUNICATION

Ms Ramiza Darmi (006102237)　　　　　　Our ref: UPM/FBMK/D/S/A03044
PhD Candidate
Faculty of Education　　　　　　　　　　Date　:　08 September 2011
University of Southern Queensland
Toowoomba
Queensland 4350
Australia

Madam

Approval on Application for Data Collection on BBI2420 Oral Interaction Course
students Academic Year 2011-2012 for PhD Research Purpose

With regards to your application on 21 July 2011 regarding the above matter, I hereby grant
permission for you to conduct your data collection on BBI2420 Oral Interaction Skills students
who will be enrolling in Semester 1 and Semester 2, 2011-2012 for the purpose of your
research study entitled "An Experimental Study: Enhancing Oral Production of ESL Learners
using Mobile Phones in a Malaysian University".

Thank you.

WITH KNOWLEDGE WE SERVE

Yours sincerely

(ASSOCIATE PROFESSOR DR CHE IBRAHIM SALLEH)
Dean

c.c:

Head, Department of English, FBMK

RD/ra

APPENDIX C: USQ Ethics Approval

University of Southern Queensland

CRICOS: QLD 00244B NSW 02225M
TOOWOOMBA   QUEENSLAND   4350
AUSTRALIA
TELEPHONE +61 7 4631 2100

www.usq.edu.au

OFFICE OF RESEARCH AND HIGHER DEGREES
Helen Phillips
Ethics Officer
PHONE (07) 4631 2690 | FAX (07) 4631 1995
EMAIL ethics@usq.edu.au

Wednesday, 21 December 2011

Ms Ramiza Darmi
5 Tame Street
South Toowoomba QLD 4350

Dear Ms Darmi,

The Chair of the USQ Human Research Ethics Committee (HREC) recently reviewed your responses to the HREC's conditions placed upon the ethical approval for the below project. Your proposal now meets the requirements of the *National Statement on Ethical Conduct in Human Research (2007)* and full ethics approval has been granted.

Project Title	An Experimental Study: Enhancing Oral Production of ESL Learners using Mobile Phones in a Malaysian University
Approval no.	H11REA169
Expiry date	30/06/2012
FTHREC Decision	Approved

The standard conditions of this approval are:
(a) conduct the project strictly in accordance with the proposal submitted and granted ethics approval, including any amendments made to the proposal required by the HREC
(b) advise (email: ethics@usq.edu.au) immediately of any complaints or other issues in relation to the project which may warrant review of the ethical approval of the project
(c) make submission for approval of amendments to the approved project before implementing such changes
(d) provide a 'progress report' for every year of approval
(e) provide a 'final report' when the project is complete
(f) advise in writing if the project has been discontinued.

For (c) to (e) forms are available on the USQ ethics website: http://www.usq.edu.au/research/ethicsbio/human

Please note that failure to comply with the conditions of approval and the *National Statement (2007)* may result in withdrawal of approval for the project.

You may now commence your project. I wish you all the best for the conduct of the project.

Helen Phillips
Ethics Officer
Office of Research and Higher Degrees

Toowoomba • Springfield • Fraser Coast   usq.edu.au

APPENDIX D: Pre-Test Survey Questionnaire

USQ UNIVERSITY OF SOUTHERN QUEENSLAND
fulfilling lives

The use of mobile phones by second language learners to reduce anxiety level and to enhance spoken communication

QUESTIONNAIRE FOR STUDENT PARTICIPANTS

Dear students,

Thank you for taking the time to participate in this survey. Your responses are important to us.

You have been specifically selected to participate in this study aiming to gauge your experience of learning English in the classroom as well as using mobile devices to facilitate language learning. Taking part in this survey is your opportunity to voice your opinions about your English language learning experience.

The data you provide will be used as part of an analysis to investigate your language learning difficulties that you may encounter as well as knowledge of using mobile devices to enhance language learning.

The questionnaire takes about 15 minutes to complete. If you have any questions about the survey, please feel free to email me at ramizashafain@gmail.com or call +617 412 224 350.

Section A: Demographic Details
Please tick (√) the appropriate answer.

Your faculty:

Faculty of Science / Fakulti Sains   [[

Faculty of Veterinary Medicine / Fakulti Perubatan Veterinar   [   ]

Faculty of Medicine and Health Science / Fakulti Perubatan
dan Sains Kesihatan   [   ]

Faculty of Agriculture / Fakulti Pertanian   [   ]
Faculty of Forestry / Fakulti Perhutanan   [   ]
Faculty of Engineering / Fakulti Kejuruteraan   [   ]
Faculty of Environmental Studies / Fakulti Pengajian Alam Sekitar
                                                           [   ]
Faculty of Design and Architecture / Fakulti Rekabentuk dan Sains
Bina   [   ]
Faculty of Sciences and Food Technology /Fakulti Sains dan
Teknologi Makanan   [   ]
Faculty of Biotechnology and Biomolecular Sciences /Fakulti
Bioteknologi dan Sains Biomolekul   [   ]
Faculty of Science Computer and Information Technology /Fakulti
Sains Komputer dan Teknologi Maklumat   [   ]
Faculty of Human Ecology / Fakulti Ekologi Manusia   [   ]
Faculty of Educational Studies / Fakulti Pengajian dan Pendidikan
                                                           [   ]
Faculty of Economics and Management / Fakulti Ekonomi dan
Pengurusan   [   ]
Faculty of Modern Languages and Communication / Fakulti Bahasa
Moden dan Komunikasi   [   ]
Faculty of Agriculture and Food Sciences (UPMKB) / Fakulti
Sains Pertanian dan Makanan (UPMKBS)   [   ]
Centre of Foundation Studies for Agricultural Science /
Pusat Asasi Sains Pertanian   [   ]

Your current academic year:

Year 1	
Year 2	
Year 3	
Year 4	

Your age:

18		22	
19		23	
20		24 and over	
21			

Your gender:

Male	
Female	

Your nationality:

Malaysian	
non-Malaysian	

Your ethnicity:

Malay	
Chinese	
Indian	
Others	

Your first language:

Malay	
Mandarin	
Tamil	
Others	

Your last secondary school:

Urban	
Rural	

Have you ever visited any English speaking countries?

Yes	
No	

Your results for the following examination and subjects:

SPM English	1A	2A	3B	4B	5C	6C	7D	8E	9G

MUET	Band 1	Band 2	Band 3	Band 4

Section B: English Language Classroom Anxiety Scale

For each statement below, put a (   ) next to each sentence to show that you:
SA- strongly agree, A- agree, N- neither agree nor disagree, D- disagree, or
SD- strongly disagree.

	Statements	SA	A	N	D	SD
1	I never feel quite sure of myself when I am speaking in my English language class.					
2	I don't worry about making mistakes in the English language class.					
3	I tremble when I know that I am going to be called on in the English language class.					
4	It frightens me when I don't understand what the teacher is saying in English language.					
5	It would not bother me at all to take more English language classes.					
6	During English class, I find myself thinking about things that have nothing to do with the course.					
7	I keep thinking that the other students are better at English language than I am.					
8	I am usually at ease during tests in my English language class.					
9	I start to panic when I have to speak without preparation in English language class.					
10	I worry about the consequences of failing my English language class.					
11	I don't understand why some people get so upset over English language classes.					
12	In English class, I can get so nervous that I forget things I know.					

	Statements	SA	A	N	D	SD
13	It embarrasses me to volunteer answers in my English language class.					
14	I would not be nervous speaking English language with native speakers.					
15	I get upset when I do not understand what the teacher is correcting.					
16	Even if I am well prepared for the English language class, I feel anxious about it.					
17	I often feel like not going to my English language class.					
18	I feel confident when I speak in my English language class.					
19	I am afraid that my English language teacher is ready to correct every mistake I make.					
20	I can feel my heart pounding when I am going to be called on in English language class.					
21	The more I study for an English language test, the more confused I get.					
22	I don't feel pressure to prepare very well for English language class.					
23	I always feel that the other students speak English language better than I do.					
24	I feel very self-conscious about speaking English language in front of other students.					
25	English language class moves so quickly that I worry about getting left behind.					
26	I feel more tense and nervous in my English language class than in my other classes.					
27	I get nervous and confused when I am					

	Statements	SA	A	N	D	SD
	speaking in my English language class.					
28	When I am on my way to English language class, I feel very sure and relaxed.					
29	I get nervous when I don't understand every word the English language teacher says.					
30	I feel overwhelmed by the number of rules I have to learn to speak English language.					
31	I am afraid that the other students will laugh at me when I speak English language.					
32	I would probably feel comfortable around native speakers of English language.					
33	I get nervous when the English language teacher asks questions which I have not prepared in advance.					

Section C: Ownership and readiness of use of mobile phones

Do you own a mobile phone?   Yes   [   ] No   [   ]

How many mobile phones do you own?   1[   ] 2 [   ] More   than   2: _____

What is the brand and model of your mobile phone, and when did your purchase it?

	Brand	Model	Year purchased
Mobile phone 1			
Mobile phone 2			

	Mobile phone use				
1	In general, I use mobile phone(s)	0-3 hours/ day	3-6 hours/day	6-9 hours/day	More than 9 hours/day
2	Have you ever used your mobile phone(s) for language learning?			Yes	No
3	I rate my skill on the following tasks using my mobile phone as				
	Making calls	Excellent	Good	Fair	Poor
	Sending SMS	Excellent	Good	Fair	Poor
	Making a video-clip	Excellent	Good	Fair	Poor
	Viewing a video clip	Excellent	Good	Fair	Poor
	Sharing a video-clip	Excellent	Good	Fair	Poor
	Recording your own voice	Excellent	Good	Fair	Poor
	Recording informal conversation	Excellent	Good	Fair	Poor
	Recording lecture	Excellent	Good	Fair	Poor
	Listening to music	Excellent	Good	Fair	Poor
	Taking photographs	Excellent	Good	Fair	Poor
	Viewing photographs	Excellent	Good	Fair	Poor
	Sharing photographs	Excellent	Good	Fair	Poor

Accessing the Internet on mobile phone					
4	Can you access the internet on your mobile phone?			Yes	No
5	In general, I use the web-enabled facilities (including www, email, news, chat etc.)	0-3 hours/ week	3-6 hours/ week	6-9 hours/ week	More than 9 hours/ week
6	I access the internet on mobile phones at				
	faculty	Always	Regularly	Sometimes	Rarely
	the library	Always	Regularly	Sometimes	Rarely
	Internet café	Always	Regularly	Sometimes	Rarely
	other places	Always	Regularly	Sometimes	Rarely
7	I access the internet on my mobile phone for the following purposes:				
	Language learning Access PLMS	Daily	A few times a week	Once a week	A few times a month
	Attempt language exercises	Daily	A few times a week	Once a week	A few times a month
	Contribute to online forum	Daily	A few times a week	Once a week	A few times a month
	Download lesson contents	Daily	A few times a week	Once a week	A few times a month

	Download educational resources	Daily	A few times a week	Once a week	A few times a month
	Refer to dictionary	Daily	A few times a week	Once a week	A few times a month
	Personal activities Send / receive email	Daily	A few times a week	Once a week	A few times a month
	View / listenin to entertainment	Daily	A few times a week	Once a week	A few times a month
	Chat	Daily	A few times a week	Once a week	A few times a month
	Access social networking sites eg. facebook	Daily	A few times a week	Once a week	A few times a month
	Read / post to your blog / facebook	Daily	A few times a week	Once a week	A few times a month
	Upload photographs to social networking sites	Daily	A few times a week	Once a week	A few times a month
	Read online news	Daily	A few times a week	Once a week	A few times a month
	Browse websites	Daily	A few times a week	Once a week	A few times a month
	Plan holiday trips	Daily	A few times a week	Once a week	A few times a month

	Check for directions	Daily	A few times a week	Once a week	A few times a month
	Download weather forecasts	Daily	A few times a week	Once a week	A few times a month
	Browsefor products / shop online	Daily	A few times a week	Once a week	A few times a month
	Play games	Daily	A few times a week	Once a week	A few times a month
	Pay study fees	Daily	A few times a week	Once a week	A few times a month
	Pay personal bills	Daily	A few times a week	Once a week	A few times a month
	Mobile reloading	Daily	A few times a week	Once a week	A few times a month
8	Which BBI2420 group do you belong to?	Group 1	Group 18	Group 62	Others

- THANK YOU FOR YOUR COOPERATION –

APPENDIX E: Permission e-mail from the instrument developer

Ramiza Darmi

From:	Ramiza Darmi
Sent:	Wednesday, 20 July 2011 8:55 AM
To:	'horwitz@mail.utexas.edu'
Subject:	RE: Re:

Hi Dr Horwitz,

I really appreciated your grant and I would be please to inform you findings of the study once my research is completed.

Thank you also for the recommendation of your recent published book.

Regards

Ramiza

-----Original Message-----
From: horwitz@mail.utexas.edu [mailto:horwitz@mail.utexas.edu]
Sent: Tuesday, 19 July 2011 12:33 PM
To: Ramiza Darmi
Subject: Re:

I appreciate your interest in my work.

Subject to the usual requirements for acknowledgment, I am pleased to grant you permission to use the Foreign Language Classroom Anxiety Scale in your research. Specifically, you must acknowledge my authorship of the FLCAS in any oral or written reports of your research. I also request that you inform me of your findings. Some scoring information about the FLCAS instruments can be found in my book Becoming a Language Teacher: A Practical Guide to Second Language Learning and Teaching, Allyn & Bacon, 2008.

Best wishes on your project.

Sincerely,
Elaine K. Horwitz

I hope things go well!
Best,
ekh

Quoting Ramiza Darmi <Ramiza.Darmi@usq.edu.au>:

> Hi
>
> I am a Phd student of faculty of education, University of Southern
> Queensland and from Malaysia. The research that I am conducting is
> on Malaysian English language learners where I am assessing their
> language anxiety levels in learning English.
>
> I am writing to seek you and your colleagues' permission on the
> adoption of Foreign Language Classroom Anxiety Scale (Horwitz, E.
> K., Horwitz, B. H. & Cope, J., 1986) in my study with a few items to
> be added in the context of the study and of the situation.
>
> I would be happy to provide more information if you need.
>
> Regards

1

APPENDIX F: Foreign Language Classroom Anxiety Scale

Source: Horwitz. E.K. (2008). Becoming a Language Teacher: A Practical Guide to Second Language Learning and Teching. Pearson.

Directions: For each item, indicate whether you (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree or (5) strongly agree.

	Statements	SD	D	N	A	SA
1	I never feel quite sure of myself when I am speaking in my foreign language class.					
2	I don't worry about making mistakes in the language class.					
3	I tremble when I know that I'm going to be called on in language class.					
4	It frightens me when I don't understand what the teacher is saying in the foreign language.					
5	It wouldn't bother me at all to take more foreign language classes.					
6	During language class, I find myself thinking about things that have nothing to do with the course.					
7	I keep thinking that the other students are better at languages than I am.					
8.	I am usually at ease during tests in my foreign language class.					
9	I start to panic when I have to speak without preparation in language class.					

	Statements	SD	D	N	A	SA
10	I worry about the consequences of failing my foreign language class.					
11	I don't understand why some people get so upset over foreign language classes.					
12	In language class, I can get so nervous I forget things I know.					
13	It embarrasses me to volunteer answers in my language class.					
14	I would not be nervous speaking the foreign language with native speakers.					
15	I get upset when I don't understand what the teacher is correcting.					
16	Even if I am well prepared for the language class, I feel anxious about it.					
17	I often feel like not going to my language class.					
18	I feel confident when I speak in my language class.					
19	I am afraid that my language teacher is ready to correct every mistake I make.					
20	I can feel my heart pounding when I'm going to be called on in language class.					
21	The more I study for a language test, the more confused I get.					
22	I don't feel pressure to prepare very well for language class.					
23	I always feel that the other students speak the foreign language better than I do.					

	Statements	SD	D	N	A	SA
24	I feel very self-conscious about speaking the foreign language in front of other students.					
25	Language class moves so quickly I worry about getting left behind.					
26	I feel more tense and nervous in my language class than in my other classes.					
27	I get nervous and confused when I am speaking in my language class.					
28	When I'm on my way to language class, I feel very sure and relaxed.					
29	I get nervous when I don't understand every word the language teacher says.					
30	I feel overwhelmed by the number of rules you have to learn to speak a foreign language.					
31	I am afraid that the other students will laugh at me when I speak the foreign language.					
32	I would probably feel comfortable around native speakers of the foreign language.					
33	I get nervous when the language teacher asks questions which I haven't prepared in advance.					

APPENDIX G: Post-Test Survey Questionnaire For Treatment Group

USQ UNIVERSITY OF SOUTHERN QUEENSLAND
fulfilling lives

QUESTIONNAIRE FOR STUDENT PARTICIPANTS

This survey is to investigate your level of language learning at the end of semester on upon the completion of the Oral Interaction Skills course.

In semester 2, 2011-2012, we spent a substantial amount of contact hours learning oral communication using mobile phone. I would like us to reflect on that experience by responding to the following questions. The findings will be the basis to support the introduction of mobile learning in language learning classes. Your cooperation is greatly appreciated.

If you have any questions about the survey, please feel free to email me at *ramizashafain@gmail.com* or call +61 412 224 350.

NAME: _____ GENDER: M / F

FACULTY: FS / FSKTM

Instruction: Please answer all questions

SECTION A: English Language Classroom Anxiety Scale

For each statement below, put a (   ) next to each sentence to show that you:
SA- strongly agree, A- agree, D- disagree, or SD- strongly disagree.

	Statements	SA	A	N	D	SD
1	I never feel quite sure of myself when I am speaking in my English language class.					
2	I don't worry about making mistakes in the English language class.					

Statements	SA	A	N	D	SD
3	I tremble when I know that I am going to be called on in the English language class.					
4	It frightens me when I don't understand what the teacher is saying in English language.					
5	It would not bother me at all to take more English language classes.					
6	During English class, I find myself thinking about things that have nothing to do with the course.					
7	I keep thinking that the other students are better at English language than I am.					
8	I am usually at ease during tests in my English language class.					
9	I start to panic when I have to speak without preparation in English language class.					
10	I worry about the consequences of failing my English language class.					
11	I don't understand why some people get so upset over English language classes.					
12	In English class, I can get so nervous that I forget things I know.					
13	It embarrasses me to volunteer answers in my English language class.					
14	I would not be nervous speaking English language with native speakers.					
15	I get upset when I do not understand what the teacher is correcting.					
16	Even if I am well prepared for the English language class, I feel anxious about it.					

Statements	SA	A	N	D	SD
17	I often feel like not going to my English language class.					
18	I feel confident when I speak in my English language class.					
19	I am afraid that my English language teacher is ready to correct every mistake I make.					
20	I can feel my heart pounding when I am going to be called on in English language class.					
21	The more I study for an English language test, the more confused I get.					
22	I don't feel pressure to prepare very well for English language class.					
23	I always feel that the other students speak English language better than I do.					
24	I feel very self-conscious about speaking English language in front of other students.					
25	English language class moves so quickly that I worry about getting left behind.					
26	I feel more tense and nervous in my English language class than in my other classes.					
27	I get nervous and confused when I am speaking in my English language class.					
28	When I am on my way to English language class, I feel very sure and relaxed.					
29	I get nervous when I don't understand every word the English language teacher says.					
30	I feel overwhelmed by the number of rules I have to learn to speak English language.					
31	I am afraid that the other students will laugh at					

	Statements	SA	A	N	D	SD
	me when I speak English language.					
32	I would probably feel comfortable around native speakers of English language.					
33	I get nervous when the English language teacher asks questions which I have not prepared in advance.					

SECTION B: LANGUAGE LEARNING EXPERIENCE

For each statement below, put a (   ) next to each sentence to show that you:
SA=strongly agree; A=agree; D=disagree; and SD=strongly disagree

	Statements	SA	A	D	SD
1	I found the introduction on the use of mobile phone for learning by my class instructor useful				
2	I was interested to use my mobile phone as a tool to access learning resources.				
3	My financial budget allowed me to access the learning resources only when I was in the Wi-Fi zone.				
4	I often accessed the course BlogSpot using my personal computer.				
5	I often accessed the course BlogSpot using my mobile phone.				
6	I was often excited to access the course BlogSpot at any time.				
7	I was often excited to access the course BlogSpot from any locations.				
8	I found the course BlogSpot more friendly to access compared to the university LMS.				
9	I often used my personal computer to access the Internet to search for extra resources related to the				

	Statements	SA	A	D	SD
	course topics.				
10	I often used my mobile phone to access the Internet to search for extra resources related to the course topics.				
11	I perceive using mobile phone for language learning purposes can reduce language anxiety.				
12	I perceive using my mobile phone is effective to enhance oral interaction skills.				
13	I feel confident to learn English anytime using my mobile phone.				
14	I believe I could have participated actively in class if I were more proficient in English.				
15	I believe I could have participated actively in class if I had greater self confidence..				
16	I have greater confidence to use English in my verbal communication.				
17	I have been unwilling to speak in English since I realised my inadequacy in English language proficiency.				
18	I believe I can acquire English better if English is often used in my surrounding.				
19	I believe to be successful in learning, I should be proficient in English.				
20	A good command of English will improve my chance of being employed.				

SECTION C: USE OF MOBILE PHONE

For each statement below, put a (   ) next to each sentence to show that you:
1=daily; 2=a few times a week; 3=once a week; 4=a few times a month; and 5=never

	STATEMENT	1	2	3	4	5
1	Sending / receiving email					
2	Downloading lesson contents					
3	Attempting language exercises on websites					
4	Chatting					
5	Accessing social websites eg. facebook					
6	Reading/posting to blog/facebook					
7	Sending photographs to social websites					
8	Playing games					
9	Referring to dictionary					
10	Downloading language resources					

SECTION D: PERSONAL OPINIONS

What do you like or dislike about using mobile phone for learning English?

Did you refer actively to the supplementary materials on my BlogSpot? If "Yes", explain what you did; if "No", give reasons.

Based on your experience, have English learning using mobile phone been more interesting than the usual classroom learning? Explain your response.

What constraints / challenges that you encountered learning English using mobile phone?

APPENDIX H: Post-Test Survey Questionnaire For No Treatment Group

USQ UNIVERSITY OF SOUTHERN QUEENSLAND
fulfilling lives

QUESTIONNAIRE FOR STUDENT PARTICIPANTS

This survey is to investigate your level of language learning at the end of semester upon the completion of the Oral Interaction Skills course. I would also like to get information on the use of your mobile phone for both personal and learning purposes. The findings will be used to introduce the relevance of mobile learning in language learning classes. Your cooperation is greatly appreciated.

If you have any questions about the survey, please feel free to email me at *ramizashafain@gmail.com* or call +61 412 224 350.

NAME: _____ GENDER: M / F

Instruction: Please answer all questions

SECTION A: English Language Classroom Anxiety Scale

For each statement below, put a (   ) next to each sentence to show that you:
SA- strongly agree, A- agree, D- disagree, or SD- strongly disagree.

	Statements	SA	A	N	D	SD
1	I never feel quite sure of myself when I am speaking in my English language class.					
2	I don't worry about making mistakes in the English language class.					
3	I tremble when I know that I am going to be called on in the English language class.					
4	It frightens me when I don't understand what the teacher is saying in English language.					

Statements		SA	A	N	D	SD
5	It would not bother me at all to take more English language classes.					
6	During English class, I find myself thinking about things that have nothing to do with the course.					
7	I keep thinking that the other students are better at English language than I am.					
8	I am usually at ease during tests in my English language class.					
9	I start to panic when I have to speak without preparation in English language class.					
10	I worry about the consequences of failing my English language class.					
11	I don't understand why some people get so upset over English language classes.					
12	In English class, I can get so nervous that I forget things I know.					
13	It embarrasses me to volunteer answers in my English language class.					
14	I would not be nervous speaking English language with native speakers.					
15	I get upset when I do not understand what the teacher is correcting.					
16	Even if I am well prepared for the English language class, I feel anxious about it.					
17	I often feel like not going to my English language class.					
18	I feel confident when I speak in my English language class.					

	Statements	SA	A	N	D	SD
19	I am afraid that my English language teacher is ready to correct every mistake I make.					
20	I can feel my heart pounding when I am going to be called on in English language class.					
21	The more I study for an English language test, the more confused I get.					
22	I don't feel pressure to prepare very well for English language class.					
23	I always feel that the other students speak English language better than I do.					
24	I feel very self-conscious about speaking English language in front of other students.					
25	English language class moves so quickly that I worry about getting left behind.					
26	I feel more tense and nervous in my English language class than in my other classes.					
27	I get nervous and confused when I am speaking in my English language class.					
28	When I am on my way to English language class, I feel very sure and relaxed.					
29	I get nervous when I don't understand every word the English language teacher says.					
30	I feel overwhelmed by the number of rules I have to learn to speak English language.					
31	I am afraid that the other students will laugh at me when I speak English language.					
32	I would probably feel comfortable around native speakers of English language.					
33	I get nervous when the English language teacher asks questions which I have not					

Statements		SA	A	N	D	SD
	prepared in advance.					

SECTION B: LANGUAGE LEARNING EXPERINCE

For each statement below, put a (   ) next to each sentence to show that you:
1=strongly agree; 2=agree; 3=disagree; and 4=strongly disagree

	Statements	1	2	3	4
1	I found the introduction to the goals of the course by my class instructor useful				
2	I use English not only to answer my instructor's questions and spoken during English class				
3	Oral communication skills are the easiest for me to learn compared to reading, writing and listening skills				
4	In my secondary school, I was taught more speaking skill than reading and writing skills				
5	I depend a little on translation and dictionary use to find meanings.				
6	There is adequate exposure for me to use English in my home environment.				
7	There is adequate opportunity for me to use English outside the classrooms.				
8	I believe I can acquire English better if English is often used at my home and outside the classrooms.				
9	I have been willing to learn English as I see the immediate need to use the language.				
10	I perceive English as an important language for communication.				
11	I am prepared to use English to communicate.				
12	I have greater confidence to use English in my verbal communication.				

	Statements	1	2	3	4
13	During the oral interaction course, I learnt how my peers expressed their own meanings				
14	I learnt communicating in English with purpose				
15	I had the chance to participate in complete interaction with my peers				
16	I believe I had successfully achieved the assigned communicative goals for all the course assessments				
17	I often used my personal computer to access the Internet to search for extra resources related to the course topics.				
18	I agree the weekly ELLIS activities have developed my oral communication skills.				
19	I did not feel threaten learning to communicate using ELLIS programme.				
20	I enjoyed listening to English spoken by the native speakers in ELLIS programme.				
21	I felt in No Treatment of my pace of learning with ELLIS programme.				
22	ELLIS programme helped me improve my English pronunciation.				
23	ELLIS programme helped me improve my overall English oral communication.				
24	I enjoyed learning English using ELLIS programme.				
25	Besides speaking, I also learnt reading, writing and listening skills in ELLIS programme.				
26	I believe I could have participated actively in class if I were more proficient in English.				
27	I believe I could have participated actively in class if I had greater self confidence.				

	Statements	1	2	3	4
28	I have been willing to speak in English though I realised my inadequacy in English language proficiency.				
29	I believe I need to be able to communicate in English in order to participate in meetings and conferences in future.				
30	A good command of English will improve my chance of being employed.				

SECTION C: USE OF MOBILE PHONE

For each statement below, put a (   ) next to either Yes or No

	STATEMENT	Yes	No
1	I can access the Internet on my mobile phone		
2	I am willing to access the Internet using my mobile phone on my own expense		
3	I am willing to access the Internet only when I am in the Wifi zone.		
4	I have accessed the Putra Learning Management System using my mobile phone		
5	I find the Putra Learning Management System mobile friendly		
6	I have used my mobile phone to refer to dictionary		
7	I have used my mobile phone to search for extra language resources		
8	I have tried language exercises on websites using my mobile phone		
9	I have watched/listened to video/audio materials for language learning purpose using my mobile phone		

	STATEMENT	Yes	No
10	I have sent/received emails on my mobile phone		
11	I have used my mobile phone for chatting purpose		
12	I have used my mobile phone to access social websites eg. Facebook		
13	I have used my mobile phone to read /post to blog/facebook		
14	I have used my mobile phone to send photographs to social websites		
15	I have used my mobile phone to play games		
16	I have used my mobile phone for entertainment		
17	I am willing to use my mobile phone as a learning tool for language learning purpose		
18	I am willing to use my mobile phone to access lesson contents		

APPENDIX I: Focus Group Interview Questions

The face-to-face interview sessions with each of the groups within the focus groups is scheduled once a month. Each session will last not more than 30-minutes. The interview will be audio-recorded. However, the students will be given the freedom to answer either in English or Bahasa Malaysia (national language). This is to ensure that the students can give their upmost feedback without the obstacle of language barrier. The meaning will not change if the questions are answered in Bahasa Malaysia as the answers will be translated to English for analysis purpose.

1   What is your perception towards the mobile learning intervention?

2   What were your experiences in learning English before?

3   Have you ever explored the use of mobile phones for learning purpose?

4   .. for language learning purpose?

5   How do you feel when you use the mobile phones for language learning?

6   How do you perceive your confidence level towards the use of English?

7   Any benefits you have gained on the use of mobile phones for language learning?

8   Any challenges that you encountered to access materials to aid your learning?

APPENDIX J : Reflective Journal Prompts

JOURNAL WRITING

JW1   In the English language classroom you must communicate in English language with your teacher and classmates. Describe the kinds of fear for you to communicate in the language, if any.

JW2   Having negative barriers in learning English language will impede learning process. Provide suggestions on how to make the classroom a more relaxing place and give less fear in you?

JW3   I used my handphone to prepare myself for test 1 by… (Explain how useful it was for your practice) **or**

I did not use my handphone to prepare myself for test 1 because … (Explain how you prepared yourself for the test)

JW4   By now you have already done your role play and can assume your performance.
1. What did you wish you should have done to improve your role play result?
2. What did you fear for the interview assessment?
3. What have you done to prepare yourself for today's interview assessment?

JW5   What should you do to perform better in the Oral Interaction Skills course?

APPENDIX K: Participant Information Sheet

USQ
AUSTRALIA

University of Southern Queensland
The University of Southern Queensland
Participant Information Sheet

HREC Approval Number: H11REA169

Full Project Title: An Treatment Study: Enhancing Oral Production of ESL Learners using Mobile Phones in a Malaysian University

Principal Researcher: Ramiza Darmi

Other Researcher(s): NA

I would like to invite you to take part in this research project.

Procedures

Participation in this project will involve

Responding on online-based survey questionnaire which will take not more than fifteen minutes. The participants in this study are required to respond to the online-based survey questionnaire at the beginning and end of Semester 2, 2011-2012. As for the focus group, an intervention will take place in class during part of the normal study time of the learners.

The monitoring form for the online-based survey will be upon receiving the submitted survey online. While for the focus group, the researcher cum the class instructor throughout semester 2 will conduct interview sessions with the focus group on weekly interval to gauge the participants' learning experience. The in-class sessions will be video-recorded too.

The focus group will benefit in terms of increasing language learning and reducing anxiety levels. These benefits will be applied more widely in the future.

The online-based survey is simple which is not intrusive and will cause neither psychological nor physical risks. Similarly, no risks are expected from the study conducted on the focus group.

Voluntary Participation

Participation is entirely voluntary. **If you do not wish to take part you are not obliged to.** If you decide to take part and later change your mind, you are free to withdraw from the project at any stage. Any information already obtained from you will be destroyed. **[If participants are not identifiable, or they are in a focus group discussion, you must state that it is not possible to withdraw their data.]**

Your decision whether to take part or not to take part, or to take part and then withdraw, will not affect your relationship with the University of Southern Queensland **and** Universiti Putra Malaysia.

Please notify the researcher if you decide to withdraw from this project.

Should you have any queries regarding the progress or conduct of this research, you can contact the principal researcher:

Ramiza Darmi

Faculty of Education, University of Southern Queensland

Toowoomba, Queensland 4350, Australia

+61 7 4528 2215+6 1412 224 350

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

Ethics and Research Integrity Officer

Office of Research and Higher Degrees

University of Southern Queensland

West Street, Toowoomba 4350

Ph: +61 7 4631 2690

Email: _ethics@usq.edu.au_

The University of Southern Queensland

Consent Form

HREC Approval Number: H11REA169

TO: **Participants**

Full Project Title: An Treatment Study: Enhancing Oral Production of ESL Learners using Mobile Phones in a Malaysian University

Principal Researcher: Ramiza Darmi

Student Researcher: NA

Associate Researcher(s): NA

I have read the Participant Information Sheet and the nature and purpose of the research project has been explained to me. I understand and agree to take part.

I understand the purpose of the research project and my involvement in it.

I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.

I confirm that I am over 18 years of age. Omit if participants are under age of 18.

I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential. If other arrangements have been agreed in relation to identification of research participants this point will require amendment to accurately reflect those arrangements.

I understand that the tape will be (if tape is to be retained, insert details of how and where the tape will be stored, who will have access to it and what limits will be placed on that access)

I understand that I will be audio taped / videotaped / photographed during the study. Omit this point if not.

I understand the statement in the information sheet concerning payment to me for taking part in the study. Omit this point if no payment will be made.

Participants under the age of 18 normally require parental or guardian consent to be involved in research. The consent form should allow for those under the age of 18 to agree to their involvement and for a parent to give consent. Copy and paste another signature field if necessary.

Name of participant…………………………………………………………….

Signed…………………………………………….**Date**……………………

If you have any ethical concerns with how the research is being conducted or any queries about your rights as a participant please feel free to contact the University of Southern Queensland Ethics Officer on the following details.

Ethics and Research Integrity Officer

Office of Research and Higher Degrees

University of Southern Queensland

West Street, Toowoomba 4350

Ph: +61 7 4631 2690

Email: *ethics@usq.edu.au*

APPENDIX L: Course Assessments Marks – Role Play

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

| ID | Pre-test marks | | Post-test marks | | | |
| | | | Moderator 1 | | Moderator 2 | |
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
C1	2	Elementary	67	Upper Intermediate	68	Upper Intermediate
C2	3	Intermediate	71	Advanced	68	Upper Intermediate
C3	3	Intermediate	71	Advanced	68	Upper Intermediate
C4	3	Intermediate	68	Upper Intermediate	66	Upper Intermediate
C5	1	Elementary	66	Upper Intermediate	66	Upper Intermediate
C6	2	Elementary	71	Advanced	68	Upper Intermediate
C7	2	Elementary	68	Upper Intermediate	67	Upper Intermediate

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

| ID | Pre-test marks | | Post-test marks | | | |
| | | | Moderator 1 | | Moderator 2 | |
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
C8	2	Elementary	66	Upper Intermediate	67	Upper Intermediate
C9	2	Elementary	65	Upper Intermediate	66	Upper Intermediate
C10	3	Intermediate	74	Advanced	73	Advanced
C11	2	Elementary	69	Upper Intermediate	68	Upper Intermediate
C12	2	Elementary	66	Upper Intermediate	67	Upper Intermediate
C13	4	Upper Intermediate	71	Advanced	72	Advanced
C14	2	Elementary	72	Advanced	73	Advanced
C15	3	Intermediate	0		0	
C16	3	Intermediate	67	Upper Intermediate	70	Advanced

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks			
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
C17	3	Intermediate	68	Upper Intermediate	67	Upper Intermediate
C18	2	Elementary	67	Upper Intermediate	68	Upper Intermediate
C19	2	Elementary	67	Upper Intermediate	66	Upper Intermediate
C20	2	Elementary	70	Advanced	70	Advanced
C21	2	Elementary	70	Advanced	68	Upper Intermediate
C22	2	Elementary	66	Upper Intermediate	66	Upper Intermediate
C23	2	Elementary	67	Upper Intermediate	68	Upper Intermediate
C24	1	Elementary	67	Upper Intermediate	67	Upper Intermediate

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks			
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor

MUET = Malaysian University English Test

Reference: Paltridge, B. (1992). EAP Placement Testing: An integrated approach

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks			
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
S1	3	Intermediate	70	Advanced	73	Advanced
S2	3	Intermediate	72	Advanced	74	Advanced
S3	4	Upper Intermediate	80	Advanced	81	Advanced
S4	3	Intermediate	80	Advanced	81	Advanced
S5	3	Intermediate	76	Advanced	77	Advanced
S6	3	Intermediate	73	Advanced	76	Advanced
S7	3	Intermediate	66	Upper Intermediate	68	Upper Intermediate
S8	3	Intermediate	72	Advanced	73	Advanced
S9	3	Intermediate	76	Advanced	75	Advanced

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks			
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
S10	3	Intermediate	73	Advanced	74	Advanced
S11	3	Intermediate	75	Advanced	73	Advanced
S12	3	Intermediate	70	Advanced	68	Upper Intermediate
S13	3	Intermediate	73	Advanced	73	Advanced
S14	3	Intermediate	73	Advanced	72	Advanced
S15	3	Intermediate	66	Upper Intermediate	68	Upper Intermediate
516	4	Upper Intermediate	75	Advanced	78	Advanced
S17	4	Upper Intermediate	75	Advanced	77	Advanced
S18	3	Intermediate	68	Upper Intermediate	69	Upper Intermediate

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

| ID | Pre-test marks | | Post-test marks | | | |
| | | | Moderator 1 | | Moderator 2 | |
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
S19	3	Intermediate	72	Advanced	72	Advanced
S20	3	Intermediate	80	Advanced	82	Advanced
S21	3	Intermediate	67	Upper Intermediate	68	Upper Intermediate
S22	3	Intermediate	72	Advanced	71	Advanced
S23	3	Intermediate	67	Upper Intermediate	70	Advanced
S24	3	Intermediate	67	Upper Intermediate	72	Advanced
S25	3	Intermediate	72	Advanced	75	Advanced

MUET = Malaysian University English Test

Reference: Paltridge, B. (1992). EAP Placement Testing: An integrated approach

ORAL INTERACTION SKILLS   No Treatment group

BBI 2420   Semester 2, 2011 - 2012

| ID | Pre-test marks | | Post-test marks | | | |
| | | | Moderator 1 | | Moderator 2 | |
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
T1	2	Elementary	74	Advanced	73	Advanced
T2	2	Elementary	70	Advanced	71	Advanced
T3	2	Elementary	72	Advanced	71	Advanced
T4			70	Advanced	73	Advanced
T5	3	Intermediate	68	Upper Intermediate	68	Upper Intermediate
T6	3	Intermediate	68	Upper Intermediate	70	Advanced
T7	2	Elementary	70	Advanced	72	Advanced
T8	2	Elementary	66	Upper Intermediate	68	Upper Intermediate

ORAL INTERACTION SKILLS   No Treatment group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks			
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
T9	2	Elementary	66	Upper Intermediate	68	Upper Intermediate
T10	2	Elementary	69	Upper Intermediate	68	Upper Intermediate
T11	2	Elementary	67	Upper Intermediate	67	Upper Intermediate
T12	2	Elementary	68	Upper Intermediate	69	Upper Intermediate
T13	2	Elementary	68	Upper Intermediate	69	Upper Intermediate
T14	2	Elementary	66	Upper Intermediate	70	Advanced
T15	2	Elementary	69	Upper Intermediate	71	Advanced
T16	2	Elementary	71	Advanced	70	Advanced
T17	2	Elementary	67	Upper Intermediate	69	Upper Intermediate

ORAL INTERACTION SKILLS   No Treatment group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks				
			Moderator 1		Moderator 2		
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
T18	2	Elementary	67	Upper Intermediate	69	Upper Intermediate
T19	2	Elementary	72	Advanced	75	Advanced
T20	2	Elementary	70	Advanced	72	Advanced
T21	2	Elementary	70	Advanced	71	Advanced
T22	2	Elementary	67	Upper Intermediate	69	Upper Intermediate
T23	2	Elementary	67	Upper Intermediate	69	Upper Intermediate
T24	2	Elementary	67	Upper Intermediate	69	Upper Intermediate
T25	2	Elementary	69	Upper Intermediate	72	Advanced
T26	2	Elementary	68	Upper Intermediate	74	Advanced

ORAL INTERACTION SKILLS   No Treatment group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks			
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor

MUET = Malaysian University English Test

Reference: Paltridge, B. (1992). EAP Placement Testing: An integrated approach

APPENDIX M: Course Assessments Marks – Mock Interview

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks				
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
C1	2	Elementary	72	Advanced	72	Advanced
C2	3	Intermediate	74	Advanced	72	Advanced
C3	3	Intermediate	74	Advanced	74	Advanced
C4	3	Intermediate	74	Advanced	75	Advanced
C5	1	Elementary	60	Upper Intermediate	55	Upper Intermediate
C6	2	Elementary	65	Upper Intermediate	68	Upper Intermediate
C7	2	Elementary	67	Upper Intermediate	69	Upper Intermediate
C8	2	Elementary	70	Advanced	70	Advanced

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

| ID | Pre-test marks | | Post-test marks | | | |
| | | | Moderator 1 | | Moderator 2 | |
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
C9	2	Elementary	64	Upper Intermediate	55	Upper Intermediate
C10	3	Intermediate	74	Advanced	70	Advanced
C11	2	Elementary	67	Upper Intermediate	68	Upper Intermediate
C12	2	Elementary	66	Upper Intermediate	55	Upper Intermediate
C13	4	Upper Intermediate	73	Advanced	74	Advanced
C14	2	Elementary	72	Advanced	72	Advanced
C15	3	Intermediate	73	Advanced	75	Advanced
C16	3	Intermediate	72	Advanced	72	Advanced
C17	3	Intermediate	67	Upper Intermediate	68	Upper Intermediate
C18	2	Elementary	66	Upper Intermediate	57	Upper Intermediate

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

| ID | Pre-test marks | | Post-test marks | | | |
| | | | Moderator 1 | | Moderator 2 | |
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
C19	2	Elementary	66	Upper Intermediate	65	Upper Intermediate
C20	2	Elementary	70	Advanced	72	Advanced
C21	2	Elementary	67	Upper Intermediate	68	Upper Intermediate
C22	2	Elementary	67	Upper Intermediate	68	Upper Intermediate
C23	2	Elementary	70	Advanced	72	Advanced
C24	1	Elementary	67	Upper Intermediate	65	Upper Intermediate
C25	3	Intermediate	67	Upper Intermediate	68	Upper Intermediate

MUET = Malaysian University English Test

Reference: Paltridge, B. (1992). EAP Placement Testing: An integrated approach

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks				
			Moderator 1		Moderator 2		
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor	
S1	3	Intermediate	73	Advanced	70	Advanced
S2	3	Intermediate	73	Advanced	71	Advanced
S3	4	Upper Intermediate	71	Advanced	71	Advanced
S4	3	Intermediate	68	Upper Intermediate	68	Upper Intermediate
S5	3	Intermediate	71	Advanced	80	Advanced
S6	3	Intermediate	70	Upper Intermediate	69	Upper Intermediate
S7	3	Intermediate	73	Advanced	70	Advanced
S8	3	Intermediate	70	Advanced	75	Advanced
S9	3	Intermediate	75	Advanced	71	Advanced
S10	3	Intermediate	70	Advanced	71	Advanced

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

| ID | Pre-test marks | | Post-test marks | | | |
| | | | Moderator 1 | | Moderator 2 | |
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
S11	3	Intermediate	75	Advanced	71	Advanced
S12	3	Intermediate	67	Upper Intermediate	68	Upper Intermediate
S13	3	Intermediate	67	Upper Intermediate	68	Upper Intermediate
S14	3	Intermediate	73	Advanced	72	Advanced
S15	3	Intermediate	67	Upper Intermediate	69	Upper Intermediate
516	4	Upper Intermediate	73	Advanced	72	Advanced
S17	4	Upper Intermediate	75	Advanced	70	Advanced
S18	3	Intermediate	75	Advanced	70	Advanced
S19	3	Intermediate	67	Upper Intermediate	64	Upper Intermediate
S20	3	Intermediate	76	Advanced	74	Advanced

ORAL INTERACTION SKILLS   Treatment group

BBI 2420   Semester 2, 2011 - 2012

| ID | Pre-test marks | | Post-test marks | | | | |
| | | | Moderator 1 | | Moderator 2 | |
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
S21	3	Intermediate	67	Upper Intermediate	69	Upper Intermediate
S22	3	Intermediate	75	Advanced	72	Advanced
S23	3	Intermediate	71	Advanced	72	Advanced
S24	3	Intermediate	65	Upper Intermediate	69	Upper Intermediate
S25	3	Intermediate	74	Advanced	70	Advanced

MUET = Malaysian University English Test

Reference: Paltridge, B. (1992). EAP Placement Testing: An integrated approach

ORAL INTERACTION SKILLS   No Tretament group

BBI 2420   Semester 2, 2011 - 2012

| ID | Pre-test marks | | Post-test marks | | | |
| | | | Moderator 1 | | Moderator 2 | |
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
T1	2	Elementary	67	Upper Intermediate	69	Upper Intermediate
T2	2	Elementary	67	Upper Intermediate	68	Upper Intermediate
T3	2	Elementary	72	Advanced	72	Advanced
T4			73	Advanced	72	Advanced
T5	3	Intermediate	67	Upper Intermediate	69	Upper Intermediate
T6	3	Intermediate	73	Advanced	72	Advanced
T7	2	Elementary	73	Advanced	72	Advanced
T8	2	Elementary	70	Advanced	70	Advanced
T9	2	Elementary	67	Upper Intermediate	67	Upper Intermediate

ORAL INTERACTION SKILLS   No Tretament group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks			
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
T10	2	Elementary	74	Advanced	72	Advanced
T11	2	Elementary	70	Advanced	70	Advanced
T12	2	Elementary	66	Upper Intermediate	68	Upper Intermediate
T13	2	Elementary	70	Advanced	72	Advanced
T14	2	Elementary	67	Upper Intermediate	69	Upper Intermediate
T15	2	Elementary	48	Intermediate	50	Intermediate
T16	2	Elementary	72	Advanced	72	Advanced
T17	2	Elementary	73	Advanced	70	Advanced
T18	2	Elementary	73	Advanced	72	Advanced

ORAL INTERACTION SKILLS   No Tretament group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks			
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor
T19	2	Elementary	73	Advanced	70	Advanced
T20	2	Elementary	67	Upper Intermediate	67	Upper Intermediate
T21	2	Elementary	68	Upper Intermediate	68	Upper Intermediate
T22	2	Elementary	67	Upper Intermediate	68	Upper Intermediate
T23	2	Elementary	73	Advanced	70	Advanced
T24	2	Elementary	72	Advanced	72	Advanced
T25	2	Elementary	67	Upper Intermediate	65	Upper Intermediate
T26	2	Elementary	67	Upper Intermediate	68	Upper Intermediate

ORAL INTERACTION SKILLS   No Tretament group

BBI 2420   Semester 2, 2011 - 2012

ID	Pre-test marks		Post-test marks			
			Moderator 1		Moderator 2	
	MUET band	EAP Placement Test	EAP Placement Test	Descriptor	EAP Placement Test	Descriptor

MUET = Malaysian University English Test

Reference: Paltridge, B. (1992). EAP Placement Testing: An integrated approach