INVESTIGATING MOTIVATION AND LANGUAGE PERFORMANCE IN ESL CLASSROOMS THROUGH THE USE OF TABLET APPLICATIONS

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KUALA LUMPUR

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FACULTY OF LANGUAGES AND LINGUISTICS
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ABSTRACT

Nowadays, technology plays an important role in the lives of our students and as a result, it has found its way into the modern classroom. According to different studies, using technology in the classroom has proven to be effective and can increase the engagement, motivation and performance of language learners. This study focused on the use of specific iPad applications for young Malaysian learners in an English language classroom. It was conducted using Dörnyei's framework on motivation to determine if students' engagement and motivation increased as a result of using iPad applications and whether that led to better performance. Additionally, the study discusses what preparations and considerations would be expected of teachers who plan to implement these applications in their classrooms. The study was conducted with two groups of students aged 13-15, over a period of 10 weeks in a private language school in Kuala Lumpur. Lessons were designed in two different ways, using iPad applications for the main group and the traditional methods for the comparison group. The performances between the two groups were compared using tests and observations. Qualitative questionnaire and interviews were used to examine whether learners of the main group enjoyed their lessons more than the comparison group due to the use of iPad applications. The results showed that learning with iPad applications enabled teachers to increase learners' engagement and motivation through the ability to create interesting tasks and that led to better performance and participation of these learners.

Keywords: *Technology, Tablet, Applications, iPad, Young Learners.*

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ABSTRAK

Dewasa ini, teknologi memainkan peranan penting dalam kehidupan pelajar-pelajar kita dan berikutan ini, ia telah mula menyusup masuk ke dalam kelas moden. Menurut pelbagai kajian, penggunaan teknologi dalam kelas terbukti berkesan dan mampu meningkatkan keterlibatan, motivasi dan prestasi pelajar-pelajar bahasa. Kajian ini tertumpu kepada penggunaan aplikasi-aplikasi iPad yang khusus untuk pelajar-pelajar muda Malaysia dalam kelas Bahasa Inggeris. Kajian ini dijalankan menggunakan kerangka kerja motivasi Dörnyei untuk menentukan sama ada keterlibatan dan motivasi pelajar-pelajar meningkat hasil penggunaan aplikasi-aplikasi iPad dan sama ada ia menyumbang kepada prestasi yang lebih baik. Tambahan lagi, kajian ini membincangkan persediaan-persediaan dan pertimbangan-pertimbangan yang dijangka daripada pengajar-pengajar yang bercadang untuk menggunakan aplikasi-aplikasi ini dalam kelas-kelas mereka. Kajian ini dijalankan dengan dua kumpulan pelajar-pelajar berumur 13-15 dalam jangka masa 10 minggu di sebuah sekolah bahasa swasta di Kuala Lumpur. Pelajaran-pelajaran direka melalui dua cara: (1) menggunakan aplikasi-aplikasi iPad untuk kumpulan utama, dan (2) kaedah-kaedah tradisional untuk kumpulan perbandingan. Prestasi-prestasi kedua-dua kumpulan ini dibandingkan menggunakan ujian-ujian dan pemerhatian-pemerhatian. Soal selidik kualitatif dan temu bual digunakan untuk memeriksa sama ada pelajar-pelajar lebih menyukai pelajaran-pelajaran mereka berbanding dengan kumpulan perbandingan kerana penggunaan aplikasi-aplikasi iPad. Hasil-hasil kajian menunjukkan bahawa pembelajaran dengan aplikasi-aplikasi iPad membenarkan pengajar-pengajar untuk meningkatkan keterlibatan dan motivasi pelajar-pelajar melalui keupayaan untuk mereka bentuk tugasan-tugasan menarik yang menyumbang kepada peningkatan prestasi dan penyertaan pelajar-pelajar ini.

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Parisa Nafissi Rad

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LIST OF ABBREVIATIONS

AMTB	:	Attitude/Motivation Test Battery
App(s)	:	Application(s); a software program that runs on a tablet/mobile device
BM	:	Bahasa Melayu / Malay; the official language in Malaysia
CALL	:	Computer-aided Language Learning
EFL	:	English as a Foreign Language
ESL	:	English as a Second Language
L1	:	First Language Learning
L2	:	Second Language Learning
MLAT		The Modern Language Aptitude Test
MLL	:	Mobile Language Learning
MMOG		Massively Multiplayer Online Games
MMORPG	:	Massively Multiplayer Online Role-playing Games
MSC	:	The Multimedia Super Corridor
MUET	:	The Malaysian University of English Test
PDA	:	Personal Digital Assistant

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CHAPTER 1: INTRODUCTION

This chapter describes the background and the purpose of this study. Furthermore, it provides description of the research questions, research objectives, and the scope of the study.

1.1 Background of the Study

English has always been an important language in both academia and workplace all around the world. In Malaysia, English language is considered as an important factor for a better and more successful future (Abdullah, 2014).

The history of English language in Malaysia started when the British rulers created private schools with English as the medium of instruction in then Malaya in the late eighteenth century. When Malaya gained its independence in 1957, Bahasa Melayu (BM) became an official language, and English is now taught as the second language in Malaysia (Gill, 2002; Abdullah, 2014; Thirusanku & Yunus, 2014).

Being aware of the importance of English as a global language for communication, the Minister of Education has highlighted the vital role of it in Malaysia and has put emphasis on increasing the students' level of proficiency (New Straits Times, 1 May 2012). English became a more important factor "since Malaysia needs an English proficient population and needs to allow English to play a more dominant role", particularly when the government proposed the three concrete plans for the development of Malaysia into "an industrialized nation in line with vision 2020, the establishment of the multimedia super corridor (MSC) and the establishment of Malaysia as a regional centre of education" (Ming, Ling, & Jaafar, 2011, p. 40).

Moreover, studies have shown that most Malaysian learners understand the importance and influence of English language proficiency on their future success and

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are extrinsically motivated to learn English to further their opportunities in their studies and career (Ming, Ting, & Jaafar, 2011). However, despite realizing this importance and having great extrinsic motivation, students have generally shown low proficiency in their performance in the language learning process (Ming, 2004; Abdullah, 2014). This could be the result of lacking intrinsic motivation which is another important element of motivation (Parilah, 2002; Bidin, Jusoff, Aziz, Salleh, & Tajudin, 2009; Zubairi & Sarudin, 2009; Ming et al., 2011).

According to Abdullah (2014), despite learning English for more than ten years in schools, most Malaysian learners have not gained a good mastery of English and the majority of these students have failed to achieve a satisfactory level of mastering the language in their tests to the extent that almost 30% of the students achieved Band 1 and Band 2 in the Malaysian University of English Test (MUET) where Band 6 is the highest level. There are many factors involved in students' failure in learning a language; some of these factors include motivation, attitudes, and beliefs of the students of the target language (Oroujlou & Vahedi, 2011).

When discussing the success or failure in language learning, the terms motivation and attitudes are often used by teachers and students as the reasons affecting the learners' performance (Dörnyei & Csizér, 1998). Another term that is commonly used as an element of success in the classroom is engagement. Studies suggest that motivation leads to engagement and learners are motivated to engage when they are interested. Engagement is an essential factor as it influences the student outcomes in the classroom over time. Research shows that a motivating and supportive learning environment can determine the level of students' engagement in tasks (Irvin, Meltzer, & Dukes, 2007).

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The question of how we create engagement and increase motivation and positive attitude in students has been examined in so many ways in different studies. In some studies, different forms of technology have been introduced and analysed as a possible factor in motivating, engaging, and improving the attitudes of the students towards learning of languages (Bialo & Sivin-Kachala, 1996; Ally, Schafer, Cheung, McGreal, & Tin, 2007; Butgereit & Botha, 2009; Alemi, Sarab & Lari, 2012; Barber, 2012; Lee, 2012). This is especially relevant as technology has become an important part of our lives and even at home, computers have become an important part of education. Integrating technology into the classroom for better learning was introduced during the 1980s in the United States and has become a popular approach since then (Kulik, Bangert, & Williams, 1983; Bialo & Sivin-Kachala, 1996; Lafford & Lafford, 1997; P. Yang, 1998; Meurant, 2010; Isisag, 2012). With the increasing number of learning tools on the web, such as online games and social media, there has been more interest in the use of web and different forms of technology in the classroom to teach foreign/second languages (L2) and exploring their effects on adults and young learners (Barber, 2012; Gilakjani, Leong, & Ismail, 2013).

Most of the studies have shown that using technology in the classroom can be effective in different ways and can increase motivation and positive attitudes among learners of different ages (Software Publishers Association, 1995; Ally et al., 2007; Meurant, 2010). Moreover, technology can add to the variety of activities and create interest or curiosity in a task and lead to more intrinsic motivation (Woolfolk-Hoy & Hoy, 2009).

Despite the fact that technology has been around for a while, most of the studies done on the use of technology in the classroom have focused on online gaming (Gee, 2004; Amoia, Brétaudiere, Denis, Gardent, & Perez-Beltrachini, 2012; Barber, 2012) or mostly on the effects of different forms of technology on adult learners including

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university students and working adults (Başoğlu & Akdemir, 2010; Azabdaftari & Mozaheb, 2012; T-Y. Yang & Chen, 2012). However, there have been some studies which have focused on these technologies in a classroom of young learners, mostly in middle and high school (Biancarosa & Snow, 2004; Granito & Chernobilsky, 2012) and only a few have specifically explored the use of tablets in these classrooms (Gasparini & Culén, 2011).

With the acceleration of technological improvements around the world, using technology in the classroom has become more viable. However, does technology positively affect the process of learning a language in specifically young learners? The current research hopes to explore this question by studying whether the use of tablet applications (abbreviated and referred to as 'apps' in this research) would positively affect young Malaysian learners' engagement, motivation, and performance in an English language classroom. In this study, apps are used through iPad, a tablet which is available throughout the research and supports all of the chosen apps for this study.

1.2 Statement of the Problem

As discussed earlier, English has been considered as an important part of education in Malaysia and the government has put in place many initiatives to encourage and facilitate the learning of English (Gill, 2002). Despite this, students have shown low proficiency in their language learning performance (Ming, 2004; Abdullah, 2014). Therefore, there have been many studies done to explore the possible reasons behind this lack of proficiency and failure in mastering the English language (Parilah, 2002; Bidin et al., 2009). It has been found out that the lack of engagement, motivation, and positive attitudes towards learning English is one of the most important issues facing the learners, particularly teenagers, in Malaysia (Zubairi & Sarudin, 2009; Ming et al., 2011).

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Consequently, people have debated on ways to encourage Malaysian students to have better attitudes towards learning English and be more motivated to do so due to the common belief that these two factors lead to better performance. Some researchers have narrowed their focus down to Malaysian young learners, as they are considered to be less intrinsically motivated to learn English (Ming et al., 2011; Abdullah, 2014). In many studies, different methods to engage young learners have been planned in order to provide a better learning environment, create interest, and achieve better results yet researchers and educators are looking for more effective ways.

1.3 Purpose of the Study

One of the possible reasons for the lack of motivation and engagement in young learners is that the traditional ways of learning and teaching have started to have less effect on students' engagement and motivation as "learners today have direct access to information through technology and the Internet, they manage their own learning in informal settings, and they have progressed beyond being consumers of content to become producers and publishers" (Gitsaki, Robby, Priest, Hamdan, & Ben-Chabane, 2013, p. 1). Consequently, some researchers have suggested using technology for learning in the classroom, in particular, tablets and mobile devices (Gitsaki et al., 2013; Chou, Block, & Jesness, 2014).

The present research intends to use apps on iPads in an English language classroom to study their effects on the language learning and performance. It aims to observe learners' engagement, motivation, attitude, and performance as a result of using these apps.

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1.4 Research Objectives

The purpose of the research is to study the effects of iPad apps for learning English in a classroom of young Malaysian learners, focusing on the learning of English vocabulary and grammar. The study will investigate the extent of the effects of these apps on the engagement, motivation, and attitude of these learners. It will also explore whether the effects lead to a better performance of these learners.

Moreover, this research will examine the factors/issues involved when apps are used in an English language class for young Malaysian learners.

1.5 Research Questions

Based on the objectives stated above, the current study seeks to answer the following questions:

1. To what extent do iPad applications for learning English vocabulary and grammar in the language classroom affect the task engagement, motivation, and attitude of young Malaysian learners?
2. To what extent do iPad applications for learning English vocabulary and grammar in the language classroom enhance the performance of young Malaysian learners?
3. What factors need to be considered when iPad applications are used in an English language classroom?

1.6 Significance of the Study

Studies on the use of mobile devices for learning languages have been carried out in different contexts and on mostly learners of higher education (Meurant, 2010; Gasparini & Culén, 2011), focusing on the effects of technology on adult learners' performance in

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foreign language classrooms (Ally et al., 2007; Amer, 2010; Başoğlu & Akdemir, 2010; Alemi et al., 2012; Azabdaftari & Mozaheb, 2012; T-Y. Yang & Chen, 2012).

Research on technology affecting language learning in younger learners in places like Africa (Butgereit & Botha, 2009), Turkey (Yildiz, 2012) and a few other countries (Meurant, 2010; Culén & Gasparini, 2011) have also been done. However, there has been no research yet focusing on the use of iPad apps in a classroom of young learners in Malaysia.

The result of this study will therefore help teachers decide whether to include the use of iPad apps in the English language classroom. It could also affect the decision of educators, heads of schools, and the government in allocating budget to equip schools with necessary gadgets and equipment to implement the use of apps in a language classroom. Moreover, the results would also benefit app designers to produce quality learning apps to meet the needs of the students.

1.7 Scope of the Study

This study was carried out on one private language school in Kuala Lumpur, Malaysia which conducts weekend English language classes. It involved 40 participants from 13-15 years of age over a period of 6 weeks.

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CHAPTER 2: LITERATURE REVIEW

2.1 Technology and Language Learning

Over the years, technology has changed the way we teach and learn and has found its way into education. According to Bialo & Sivin-Kachala (1996), due to the growth in use of computer-based technology for instruction in the United States during the 1980s, there were many studies which demonstrated that using computer technology could increase motivation and positive attitude of students towards learning (Software Publishers Association, 1995). It also demonstrated an increase in teachers' motivation and freeing them from some instructional tasks (Kulik et al., 1983; Bialo & Sivin-Kachala, 1996). This could be because "Computer and video games have a built-in advantage in the creation of motivation for an extended engagement" (Gee, 2004, p. 55).

Gee (2004) points out that nowadays there might be other reasons for students' lack of achievement in school. He claims that computers have been a part of students' lives outside the classroom over the recent years and children mostly use computer and other media in their free time. Hence, they are more exposed to the language of these modern technologies and find them possibly more interesting and motivating as well. As he says "these new technologies and media may well recruit forms of thinking, interacting, and valuing that are quite different from—and, again, more compelling and motivating than—those children find in today's schools" (Gee, 2004, p. 34). In his study, he examined the effects of video and computer games and focused on computer games such as *Rise of Nations (RoN)* and *Age of Mythology (AoM)*, where he analysed his own learning experience with these games as a game player and compared it to his interactions with other similar video games. Gee (2004) then reflected on his interaction

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and concluded that using computer technologies in the classroom can engage and motivate learners more effectively.

In recent years, there has been an increasing interest in the use of web and technology in the classroom to teach foreign/second languages (L2) (Kulik et al., 1983; Bialo & Sivin-Kachala, 1996; Lafford & Lafford, 1997; Barber, 2012; Gilakjani et al., 2013). Biancarosa & Snow (2004) consider technology as both a facilitator (i.e., a tool) and a mediator (i.e., a topic) of literacy, which is used to support students and provide a chance of guided practice. They conclude that "Effective adolescent literacy programs therefore should use technology as both an instructional tool and an instructional topic" (Biancarosa & Snow, 2004, p. 19). However, their focus is mostly on the use of these technologies for reading purposes.

The use of multimedia technologies has been quite useful for learners and teachers but there have always been doubts about its usage and effects in education. There are many appealing factors for teachers to use computers and mobile devices in the classroom. The variety of the topics and apps and the accessibility are some of those factors (Barber, 2012; Gilakjani, Leong, & Sabouri, 2012; Gilakjani et al., 2013). Granito and Chernobilsky (2012) suggest that introducing technology can help teachers create enjoyable lessons and using different forms of technology can be great motivation for every grade level.

The focus of researchers, however, has mostly been on online gaming and virtual world and how it affects language acquisition in children outside the classroom. Amoia et al. (2012) examined a newly-designed 3D language game called I-FLEG and compared it with previous computer-aided language learning (CALL) approaches and with that of learning in a traditional classroom setting. In this research, it was discovered that the participants really enjoyed this learning platform and were highly

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engaged. Therefore, Amoia et al. (2012) claimed that technology adds the element of extra fun to the lesson as opposed to the traditional book-based methods and this can result in better engagement and motivation in learners.

In another research, Barber (2012) explored student-student interactions during face-to-face video game play, focusing on high school students in France. Although her focus was on the role of gestures in video games, her study has "implications for both the instruction and learning of a second language as well as the use of interactive media and even video games for educational purposes" (Barber, 2012, p. iv). Barber suggested that "integrating technology into the language class would make full advantage of the existing digital literacy skills and interests of second language students" (2012, p. 9). She claimed that "a contemporary educational context with technology in use and gaming builds on students' strengths with technology" and how this could actively engage ESL students regardless of their proficiency in their second language (Barber, 2012, p. 13).

Sylvén and Sundqvist (2012) present evidence that proficiency in a second language correlates with how much time teenagers spend playing massively multiplayer online role-playing games (MMORPGs). The participants of their studies were 11-12 year old students in Sweden. Thorne (2008) also explored the MMORPGs and argued that there is a gap between the real world and the schooling system and as he put it "the existence of a deeply problematic school-world divide between the goals and processes of conventional institutionalised schooling on the one hand and students' increasingly mediated interpersonal, recreational, and professional lives on the other" (Thorne, 2008, p. 305).

Studies on massively multiplayer online games (MMOGs) and MMORPGs indicate that these games present learners with opportunities to create and improve their

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interpersonal relationships by creating a collaborative environment and a sense of belonging to a community. Consequently, the need to participate and be a part of this virtual community results in a higher level of motivation and engagement in learning the language (Rama, Black, Van Es, & Warschauer, 2012).

Moreover, players have a lower level of inhibition while playing MMOGs as they are completely engaged and aim to achieve the game objectives. Hence, they feel more confident to use the language and form social relationships with other players. In doing so, they develop more positive attitudes towards the language (Rama et al., 2012).

Other theories on the effectiveness of such interactive media suggest that players choose games that are compatible to their cognitive skills and help improve them. If players are not provided with tasks that challenge their mental and cognitive abilities, they lose interest. This ideas is supported by Vygotsky's the "zone of proximal development" (1978), which claims that effective inputs are those that are equal to the individual's developmental stage. It is suggested that interactive forms of technology can offer that level of challenge to learners by providing them with engaging tasks (Ritterfeld & Weber, 2006).

Most of these studies explore the relationship between online games and language learning; however, the context is mostly Europe or the United States. On the other hand, Chik (2014a) turned the focus of her studies to East Asian context and investigated second language learning (L2) and online gaming in young learners' lives. Her research, which was focused on Chinese-speaking gamers using their digital gameplay for L2 learning, suggests that online gaming accumulates learner autonomy and it has implications of pedagogical aspects of online gaming. According to Chik's findings (2014a), autonomy which can be exercised through different dimensions is not only limited to "in-game interactions with game texts and with other gamers and the

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extended online gaming communities provide support in both L1 and L2 through paratexts and language learning advices" (p. 97).

The effects of online gaming and computers on learning processes have been studied over the years. However, there are other forms of technology which can offer innovative ways of teaching and facilitate the exchange of information between learners and teachers such as mobile devices and mobile apps. The research into these technologies has opened the way to mobile language learning (MLL) as the next step to e-learning. MLL "refers to the use of mobile technologies, such as mobile phones, personal digital assistants (PDA), and tablet computers in language learning context" (Itayem, 2014, p. 1). Tablets are considered as handheld mobile devices and since the introduction of iPad, it is the market leader of tablet computers (Chik, 2014b). The iPad is unique because "they put the main educational uses of technology into one small power device, instead of being dispersed across mobile phones, media players, and computers" (Itayem, 2014, p. 18).

According to Chik, iPad has been marketed as a learning device but "an iPad cannot be a learning tool in itself without the support of application software ('apps' for short)" (2014b, p. 252). Cambridge Dictionaries Online defines application (app) as "a software program that runs on a mobile device".

2.2 Why applications?

In this research, it is intended to focus on using apps on iPads in the classroom. In recent years, there have been many apps developed and some of them are considered to be educational. The *Apple App Store* claims that educational apps for 'Language Development' help learners of English as a Second Language (ESL) with reading, writing, speaking and vocabulary building (Apple 2013).

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According to Chik (2014b), there are not many published works on the evaluation of apps for educational purposes since they are still a relatively new phenomenon in language classrooms. However, the use of these apps in language classrooms has become more common and they are believed to have a positive effect on the learning process of the learners (Gilakjani et al., 2013). It is also known that due to their portable and simple nature, iPads increase collaboration between students and result in more confidence (Itayem, 2014).

Gilakjani et al. (2013) explore different studies focusing on apps and suggest that they create "a learning atmosphere centred around the student rather than the teacher" by replacing books in a traditional classroom with apps. Harmon (2012) explored the effects of using iPads on reading and writing. In his research, the learners used different apps such as *iBooks* and *WordFlic* to write journals and complete assessments. The group using iPads showed better results in their tests than those who used traditional methods of learning. These studies show that iPads promote engagement, collaboration, and productivity. They have also been known to make tasks easier and improve interaction in a meaningful context. Students have shown a more positive attitude towards using iPads in their learning process (Itayem, 2014).

In another research, C. Yang and Xie (2013) looked at the use of iPads for idioms self-study with a group of heritage Chinese students. The *Wordpress* app was used in this study to promote collaboration. The performance of the learners was measured through immediate/ retention tests and observations by the researcher. The results showed that students using iPads did not have a higher level of retention compared to the ones using papers yet comprehended texts in their reading task better.

In his study, Itayem looks at the perception of language learners towards using iPad apps in the classroom. The learners responded positively to using apps and felt that they

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had improved their language skills. He concluded that these technologies including iPad apps help the students "to learn to their full potential" (2014, p. 48).

There has been an increasing use of mobile devices and tablets, particularly iPads, and apps in language classrooms which encourages researchers to look into different features and effects of these technologies on language learning (Ally et al., 2007). There are a few factors that can be considered as the effect of these technologies including motivation, engagement, and attitude.

2.3 Motivation

Researchers define motivation as the responsible factor for human behaviour and giving it direction (Dörnyei, 1998). In many experiments, it was shown that higher motivation leads to better learning and performance (Dörnyei, 1998; Gardner, 2007; Bidin, et al., 2009; Gilakjani et al., 2012). Despite this, teachers have often struggled with motivating students to learn (Heafner, 2004). Therefore, there have been studies done on factors and methods which can affect and increase motivation.

As Dörnyei and Csizér (1998) and Gardner (2007) point out, motivation has always been a key factor in the learning process and plays an important role in the rate of success in second/foreign language learning (L2). Over the past decades, extensive research has been done to identify and explore motives in the study of L2. Different researchers have proposed different frameworks and models to define the construct of L2 motivation, including Gardner (1985); Crookes and Schmidt (1991); Dörnyei (1994a/b); Clément, Dörnyei and Noels (1994); Tremblay and Gardner (1995); Schmidt, Boraie and Kassabgy (1996); Williams and Burden (1997); Dörnyei and Ottó (1998); Schumann (1998). There are many factors which are identical or similar in these constructs, while some of these elements are specific to only a few of them (Dörnyei & Clément, 2001). Dörnyei identified the common dimensions of motivation and

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presented 13 different constructs based on the motivational domains underlying them. He decided that all these models/frameworks can be classified into seven broad dimensions:

> 1. *Affective/integrative dimension,* referring to a general affective "core" of the L2 motivation complex related to attitudes, beliefs and values associated with the process, the target and the outcome of learning, including variables such as "integrativeness," "affective motive," "language attitudes," "intrinsic motivation," "attitudes toward L2 learning," "enjoyment" and "interest;"
> 2. *Instrumental/pragmatic dimension,* referring to extrinsic, largely utilitarian factors such as financial benefits;
> 3. *Macro-context-related* dimension, referring to broad, societal and sociocultural factors such as multicultural, intergroup and ethnolinguistic relations;
> 4- *Self-concept-related dimension,* referring to learner-specific variables such as self-confidence, self-esteem, anxiety and need for achievement;
> 5. *Goal-related dimension,* involving various goal characteristics;
> 6. *Educational context-related dimension,* referring to the characteristics and appraisal of the immediate learning environment (i.e., classroom) and the school context; and
> 7. Significant *others-related* dimension, referring to the motivational influence of parents, family, and friends. (Dörnyei, 1998, p. 128)

Dörnyei and Clément (2001) suggested several reasons creating different frameworks/models and decided that the differences were the results of different things; the techniques and instruments used for gathering data, the target language of the research, the language learning situation and the learners, the community where the language was studied, and other geographical and geopolitical elements (Dörnyei & Clément, 2001, p. 401).

Robert Gardner and Wallace Lambert have also been two of the main researchers who studied motivation and its effects on language learning (Dörnyei & Csizér, 1998). Gardner and his peers designed a standardized motivation battery, the AMTB (Attitude/Motivation Test Battery), to measure different components of motivation. In the second language profession, two components of this model in particular became well-known: *integrative* and *instrumental orientation* (Dörnyei & Csizér, 1998). According to Gardner and Lambert (1972), instrumental motivation is about reaching

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immediate goals, such as getting a job or passing an examination. However, integrative motivation is about learning a language to be able to communicate with people and become a part of a community (Hudson, 2000).

Gardner, Lalonde, and Moorcroft (1985) claim that motivation in learning a second language context is about how much effort is put into learning that language by the learner due to the individual's desire and the satisfaction resulted from the learning process. However, more importantly as Dörnyei (2001) puts it; "From a practicing teacher's point of view, the most pressing question related to motivation is not *what* motivation is but rather *how* it can be increased." (p. 52)

After the 1990s, there was a shift in research focused on motivation and it was an attempt to "adopt a more pragmatic, education-centred approach to motivation research, which would be consistent with the perceptions of practising teachers and, thus, be more directly relevant to classroom application" (Dörnyei & Csizér, 1998, p. 204).

Gardner and Lambert were mostly focusing on the Canadian context (Dörnyei, 2003). Later on, Dörnyei and Csizér (2002) examined the language-related attitudes and motivation of students regarding five target languages in a European context (Hungary). Their data was collected based on a survey from 8,593 13/14-year-old students in 1993 and 1999. In their research, they questioned the word *integrativeness* used in the Gardner's model and how this factor cannot be easily defined or can be very dependent on the context. It was suggested that the integrative motivation does not only relate to integration into the L2 community and is more about the individual's *self-concept* (Dörnyei & Csizér, 2002; Dörnyei, 2003).

During the 1990s, Dörnyei also introduced two main types of motivation; extrinsic and intrinsic. Extrinsic motivation is the learner's desire to achieve an external goal or reward and it is usually associated with instrumental motivation (Dörnyei, 1998).

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Instrumental motivation comes from the need to learn the L2 for functional or external reasons such as having a better position in the society (Boggiano & Pittman, 1992; Dörnyei, 1998).

In certain language environments, as Gardner and Lambert (1972) point out, when the L1 is a local language and the L2 is accepted nationally, a majority of the people try to learn the language. According to Ming et al. (2011), this can apply to some degree in the Malaysian context where BM is the official language of the country but English plays an important role as the second language since Malaysia's independence in 1957. The majority of students in Malaysia are aware that a high proficiency in English can positively influence their future studies and career advancement (Ming et al., 2011).

Dörnyei (1994b) considers instrumental motivation as the central factor in learning a language where relevancy becomes important, where short-term relevant practical results are available for the learners such as job or salary-related benefits. Instrumental motivation in the Malaysian context can be having a better job and education. This factor makes the instrumental motivation a strong type of motivation in Malaysian learners (Ming et al., 2011; Gilakjani et al., 2012).

Clément, Dörnyei, and Noels (1994) however, pointed out that these instrumental factors and pragmatic rewards are rarely relevant to children and for example, teenagers in middle and high schools might find them very remote. As a result, in the young learners' context, intrinsic motivation can play an important role. Therefore, teachers should also look for ways to encourage students to learn a language for more personal reasons and increase their intrinsic motivation and find ways to connect these reasons with external factors (Abdullah, 2014).

Dörnyei (1994a) focused on the pedagogical aspects of motivation and "developed a more general framework of L2 motivation that attempts to synthesize various lines of

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research by offering an extensive list of motivational components categorized into three main dimensions, the *Language Level*, the *Learner Level* and the *Learning Situation Level*" (Dörnyei & Csizér, 1998, p. 205). He re-evaluated the components of motivation in learning L2 in the table below:

Table 2.1: Components of Language Learning Motivation

Level	**Motivational Components**
Language Level	Integrative motivational subsystem Instrumental motivational subsystem
Learner Level	Need for achievement Self-confidence • language use anxiety • perceived L2 competence • causal attributions • self-efficacy
Learning Situation Level • Course-specific motivational components	Interest Relevance Expectancy Satisfaction
• Teacher-specific motivational components	Affiliative motive Authority type Direct socialization of student motivation • modelling • task presentation • feedback
• Group-specific motivational components	Goal-orientedness Norm and reward system Group cohesion Classroom goal structure

(Dörnyei & Csizér, 1998, p. 206)

According to Dörnyei and Csizér (1998), the motivational reasons at the *Language Level* can mostly relate to the traditional concepts of *integrative* and *instrumental*

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motivation. In the current study, one of the focuses will be on the integrative aspect of motivation which can be also related to intrinsic motivation.

Dörnyei and Csizér (1998) described the *Learner Level* as personality features that the learner has developed in the past. The *Learning Situation Level* is, however, more relevant to situation-specific motives and can be broken down into three main types of sources: *Course-specific motivational components, Teacher-specific motivational components,* and *Group-specific motivational components* (Dörnyei and Csizér, 1998). Another factor that is considered important in this research is the course-specific components "which are related to the syllabus, the teaching materials, the teaching method and the learning tasks" (Dörnyei and Csizér, 1998, p. 207). Dörnyei and Csizér (1998) described the course-specific motivational components within the framework of four motivational situations suggested by Keller (1983) and then by Crookes and Schmidt (1991) as:

> *Interest* (intrinsic motivation centred around the individuals' inherent curiosity and desire to know more about themselves and their environment), *relevance* (the extent to which the student feels that the instruction is connected to important personal needs, values or goals), *expectancy* (perceived likelihood of success) and *satisfaction* (the outcome of an activity, referring to the combination of extrinsic rewards such as praise or good marks, and to intrinsic rewards such as enjoyment and pride) (Dörnyei and Csizér, 1998, p. 207).

The course-specific factors are also considered important in the current study as they focus on students' interest (which can be a result of their intrinsic motivation), and the relevance (whether students feel that the syllabus is related to their needs and values which can be affected by using mobile apps in the classroom and how the syllabus relates to their real-life situations). Therefore, this could possibly increase positive attitudes among students and lead to better performance in learning a second language.

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One of the important factors in this study is the intrinsic motivation. As mentioned earlier, intrinsic motivation is usually associated with integrative motivation and is defined as the desire to perform an action without any external reward (Bandura, 1977). According to Sanacore (2008), teachers should help increase students' intrinsic motivation in a traditional classroom.

However, researchers like Oller, Hudson and Liu (1977) have questioned the clarity of integrative or instrumental motives suggesting that a reason can fall into different categories depending on the individual's interpretation for choosing it. Gardner (1985) argues that by investigating the reasons for learning a second language empirically, this ambiguity can be resolved. Clément & Kruidenier (1983) attempted to group different reasons and eliminate this ambiguity in one of their studies in Canadian context. In their research, they analysed reasons for learning a language among 871 grade 11 students, assessing the influence of ethnicity, milieu, and target second language on the emergence of different motivational orientation. In their findings, the common reasons relating to the above orientations were instrumental, friendship, travel, and knowledge.

Overall, Dörnyei and Csizér (1998) argue that since motivation is a really important factor in learning languages, teachers should mainly look for effective skills in motivating learners and focus on practical solutions rather than just theories. Teachers need to change their methods to match the needs and wants of their students in order to motivate them more.

It is true that motivation is a complex concept and it is not easy to look at all the factors involved or develop one strategy and techniques to increase learners' motivation (Dörnyei and Csizér, 1998). However, it should not stop teachers from identifying possible effective techniques and using them in their classrooms. In doing so, they need

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to think of their students' backgrounds and needs and develop strategies that match those. Teachers also should generate interest in the lesson to motivate the learners.

Interest, as Dörnyei and Csizér (1998) put it, can be achieved in different ways; choosing interesting tasks and topics, supplementing the lessons with interesting materials, having a variety of activities, making tasks challenging, and introducing unexpected elements to raise curiosity. Educators have been searching for an extra element that can engage students, challenge them, and relate to their personal preferences.

According to Jukes and Dosaj (2005), today's generation of children come from a different digital background and will probably be more motivated by the use of technology in the classroom. Infusing technology into the classroom can ignite the students' interest and curiosity and have positive effects on their motivation (Atkinson, 2000; Prensky, 2001; Linnenbrink & Pintrich, 2003). Students are also known to be more motivated when they find a task exciting (Linnenbrink & Pintrich, 2003; Granito & Chernobilsky, 2012).

It has been suggested that using technology in the classroom offers a wider variety of tasks and therefore, tasks can become more challenging and interesting for learners (Meurant, 2010; Isisag, 2012). Dörnyei (2003) explored the concept of *Task Motivation* and said that tasks are "the basic building blocks of classroom learning" (p. 14) and hence, they offer an easier examination of the learners' motivation in research. It cannot be ignored that tasks form the students' interest and in addition to that, the way these tasks and activities are administered can have a huge effect on the learners' attitude.

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2.4 Engagement and Task Engagement

When it comes to engagement, researchers have used many terms including "student engagement, school engagement, student engagement in school, academic engagement, engagement in class, and engagement in schoolwork" (Fredricks & McColskey, 2012, p. 764). A two-dimensional model of engagement has been introduced by researchers including "behaviour (e.g., participation, effort, and positive conduct) and emotion (e.g., interest, belonging, value, and positive emotions)". There is a more recent three-component model of engagement including "behaviour, emotion, and a cognitive dimension (i.e., self-regulation, investment in learning, and strategy use)" (2012, p. 764). The most recent model belongs to Christenson and her colleagues with four dimensions: "academic, behavioural, cognitive, and psychological (subsequently referred to as affective) engagement" (as cited in Fredricks & McColskey, 2012, p. 764).

One of the important types of engagement is student engagement but there are many dimensions to engagement including interest which can be a defining element (Fredricks & McColskey, 2012).

Another important concept that is usually used alongside with engagement is motivation. Motivation and engagement have regularly been used in education; however, there is no easy description as they are complex concepts. Often task engagement is used by researchers to describe and measure the learners' motivation since it is difficult to measure motivation on its own (Crookes & Schmidt, 1991; Dörnyei, 2001; Lee, 2012). According to Crookes and Schmidt, researchers "would describe a student as motivated if he or she becomes productively engaged in learning tasks" (1991, p. 480). There are different definitions but "Task engagement has been primarily described in educational research as flow and involvement" (Lee, 2012, p. 7-

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8). Flow is described by Csikszentmihalyi as the "learners' states in which they become absorbed in a task to the extent that they lose track of time and place" (Lee, 2012, p. 8). Lutz, Guthrie and Davis (2006) use a broader concept called "involvement" to define task engagement. They describe task engagement "as a multi-dimensional construct which includes affective, behavioural, cognitive, and social involvement in a task in the classroom". This means that learners show their engagement in a task with signs of enjoyment, enthusiasm, and active participation in a task (as cite in Lee, 2012, p. 8).

Motivation and task engagement follow each other and that makes them almost identical (Lee, 2012). On the other hand, even though these two concepts are interchangeable, there are differences between the two. Firstly, Russell et al. claim that "motivated learners are not necessarily engaged in classroom tasks" (as cited in Lee, 2012, p. 8). In a recent study with primary and secondary students in Australia, Russell, Mackay, and Jane (2003) concluded that even though students were highly motivated, they did not show high engagement in the tasks and found them boring. These resulted in students' lack of good performance in tasks due to lack of task engagement. It suggests that motivated learners are not always engaged. Secondly, Lee (2012) claims that a learner can stay engaged in a task despite a lack of motivation. He defines motivation as a goal-oriented concept and if that reward disappears, sometimes the engagement remains. If learners are highly interested in a task, they would still remain engaged to finish it.

Despite the differences, the importance of task engagement on the level of motivation cannot be denied and these two concepts accompany each other in the classroom.

2.5 Attitude

Another important element in language learning is attitude. In many studies, attitude has been explored alongside motivation because many researchers consider motivation

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and attitude to be closely related to success in the language learning process (Ming et al., 2011; Gilakjani et al., 2012). The first study that explored this theory that motivation and attitude are important in language learning was conducted by Bartley (1968). She used the Modern Language Aptitude Test (MLAT) and a Foreign Language Attitude Scale to realise that students with less positive attitude did not choose to study foreign languages the next year (Carroll & Sapon, 1959).

In another research, Gardner explored students' attitudes toward different aspects of the French language and culture in the AMTB (Gardner, 1985). Later on, he adapted and made changes to this test so that it could be used with English and other languages (Gardner, 2004). In addition to examining the students' attitudes toward the culture associated with the French language, the test measured their attitudes toward learning the language along with their motivation and reasons for learning, as mentioned earlier in Chapter 2.3.

In the French version of the AMTB, students were presented with different statements (*e.g. I really enjoy learning French*) and decided to what scale they agreed with each one. These items were analysed using the Likert Scales and covered a range of areas: attitudes toward French Canadian and European French people, attitudes toward learning French, attitudes toward the teacher and the classroom, and students' reasons for learning French. They were also provided with multiple choice options that explored their motivational intensity and their desire to learn the language (*e.g. I actively think about what I have learned in my French class: a) very frequently, b) hardly ever, c) once in a while*) (Gardner, 1985).

Although the AMTB was originally focused on Canadian students learning French as a second language and examined their attitudes and motivation on a general scale, it has been used in many different forms and adapted to different contexts (Gardner, 1985;

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2004). The AMTB has been the base of many motivation and attitude questionnaires; however, the reliability and validity of its results depend on the care taken in its administration (Gardner, 1985).

Following this, many studies have explored the effects of attitude on language learning along with motivation. As a result, it has been generally acknowledged that learners with higher motivation and a better attitude toward learning a language have usually better performance as well (Ming et al., 2011; Mahadi & Jafari, 2012).

Attitude is defined as a set of beliefs which are developed in a society over a period of time. Attitude in language learning can affect students' participation in learning a language (Abdullah, 2014). Gardner (1985) introduces two types of attitudes; "attitudes toward learning the language, and attitudes toward the other-language community" (p. 39). He argues that attitudes can be classified in many different categories, and later on specified that one of these categories can relate to second language achievement. Gardner claims that there is a correlation between attitudes toward learning a language and achievement in the said language:

> In comparison with those individuals with negative attitude, those with positive ones would be more attentive in the learning situation, would take assessments more seriously, would find it more rewarding to simply experience the language, and thus achieve more (1985, p. 41).

Gardner (1985) also defines another classification of attitude; educational and social attitudes. The educational attitudes, which can be important in this research, are the learners' attitudes toward the teacher, the course, and learning the language, while social attitudes focus on the cultural aspect of the second language. According to Gardner (1985), the two attitudes which have drawn the attention of many researchers are attitudes toward learning the L2 and attitudes toward the L2 community. "The first

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is clearly an educationally relevant attitude, while the second is primarily a social one" (p. 42).

Gardner's integrative motivation has three main components; Motivation, Integrativeness, and Attitude toward the learning situation (Dörnyei, 1994b). Gardner and Lambert (1972) suggested that motivation in learning a second language was connected to the attitude toward that language. Gardner (1985) believes that a positive attitude and high motivation leads to better learning. It is believed that positive attitude can facilitate the learning process (Dörnyei, 1998; Dörnyei & Csizér, 2002; Sugimoto & Rahimpour, 2006).

Gardner (1985) also points out that attitude toward learning a language varies from one country or context to another. Looking at different studies, he concludes that students, who are from an environment where parents or the community has a positive approach toward the L2, tend to have a more positive attitude toward that language as well. In the Malaysian context, learning English is considered to be important and usually parents and the community have a positive approach toward the language (Ming et al., 2011).

Moreover, positive attitude encourages learner to be more interested in a task and increases the participation. Technology can create an active involvement in the task by students (Yiong, Sam, & Wah, 2008). If more interesting and challenging tasks can be designed by using technology in the classroom, learners' motivation and attitude is likely to increase as a result which is due to task-motivation as explained by Dörnyei (2003).

Apart from motivation and attitude, students of this century might retain information for longer if they receive it in a more familiar way, for example, through iPad apps.

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These apps can be more useful for a student's memory (Miller, 2009; Granito & Chernobilsky, 2012).

2.6 The Drawbacks of Technology

Integrating technology into the classroom must be purposeful so that it benefits the learners and leads to better performance (Cramer & Smith, 2002). Granito and Chernobilsky (2012) point out in their research that "Many students in the 21st century gravitate toward technology because they think it is "fun and easy." Sometimes, just because a project is "fun and easy" does not mean that student will learn information" (p. 19-20). On the other hand, they admit that technology has a great potential to be used for educational purposes for those who are interested in it.

In addition, as Wagner (2005) noted, technology on its own does not guarantee better learning. However, using it effectively will increase the attention and interest of the learners and will make their learning experience more memorable (Abas, Peng, & Mansor, 2009).

Technology could have its own drawbacks. Clark (1983) claimed that technology on its own does not affect the learner's cognitive process. He argued that media are used as tools to deliver instructions and do not affect the achievement of the students. However, I think this perspective can be challenged as Itayem (2014) argues that this view is as a result of Clark's point of view of how learning happens "which relies on transferring educational content from the teacher to the student; thus, any selected media can provide this channel of delivery, in turn, it does not impact learning" (p. 4). Clark claims that "media can be a source of multisensory input, which is essential to communication in the target language" (Itayem, 2014, p. 4).

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Moreover, technology can be shaped where and how it fits the context and beyond its original intended role, which is called 'social shaping' in academia (MacKenzie & Wajcman, 1999). Itayem explains this with Skype as an example:

> Skype was created as a medium of communication, specifically, to make voice calls over the Internet. Yet, language teachers extended its use and use it as a source of authentic communication input. Using Skype brought the outside world into the classrooms allowing the students to interact with speakers of the target language visually, orally, and in a written format, which engaged them into real-life situations that enhanced their language ability (2014, p. 6).

Research has shown that iPads can be useful depending on the task given and how familiar students are with the iPad apps (Itayem, 2014).

Despite these possible drawback; however, the future belongs to those who place technology in a wider context rather than just focusing on it alone and consider the pedagogical values of its integration into the education system (Fullan & Donnelly, 2013).

One last factor that needs to be considered is that although the current research intends to examine how iPad apps can be used in the classroom as one of the possible factors helping to increase motivation, attitude, and performance in young learners in the Malaysian context, there is not only one technique, strategy, or factor that can be considered as the only tool for increasing motivation and it all varies based on different individuals and learning contexts (Dörnyei and Csizér, 1998). Teachers need to think of all these elements that can change the effectiveness of the methods they use in their classrooms.

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CHAPTER 3: METHODOLOGY

This chapter describes the methods and instruments used to collect and measure data in the process of doing this research.

3.1 Theoretical Framework

Both attitude and motivation play a crucial role in a better language learning experience and lead to better performance (Dörnyei, 1998; Gardner, 2007). Studies done in Malaysia have shown that most learners are extrinsically motivated to learn English; however, their language proficiency is low, possibly due to a lack of intrinsic motivation (Ming et al., 2011). This study explores the effects of iPad apps on these two factors and whether they lead to better performance.

This research therefore is based on Dörnyei's motivation theory (1998) and the framework suggested by him for the components of language learning motivation (1994a, see Table 2.1) which stated that both attitudes and motivation are important factors in learning another language and that there are different factors affecting a learner's level of motivation and attitude.

Dörnyei (1998) introduces the "Main motivational dimensions underlying 13 L2 motivation constructs", categorising factors such as intrinsic motive, attitudes toward L2 learning, enjoyment, and interest under the first group called "Affective/integrative dimension". He claimed that interest and engagement together result in higher level of intrinsic motivation. Dörnyei (1998) then argued that the higher level of motivation can lead to a more positive attitude and the combination of these two factors will consequently result in better performance.

As Crookes and Schmidt (1991) put it, motivation is a difficult concept to be measured but often an engaged student is considered to be a motivated one. *Engagement*

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can be a defining factor in the level of motivation and often engagement is measured through task engagement which is the level of enthusiasm, the flow of the task, and the involvement of the learners (Lutz et al., 2006; Lee, 2012).

Another important factor is *interest*. Dörnyei and Csizér (1998) consider interest as one of the important factors in motivating learners. In their research, they proposed the 'Ten Commandments for motivating language learners'. Commandments number 6 in their article is "*Make the language classes interesting"* and "The basis of this commandment is the general observation that the quality of the learners' subjective experience is an important contributor to motivation to learn" (Dörnyei & Csizér, 1998, p. 216). According to Dörnyei's framework (1994a, see Table 2.1), this commandment falls under *Learning Situation Level* where he introduces *interest* as a factor which is *course-specific* and can be linked to the lessons and the materials used for the course to create an interesting environment.

Furthermore, Clément et al. (1994) argued that instrumental factors and extrinsic motivation are rarely relevant to children and for example, secondary school students might find them very far-fetched. Therefore, in the young learners' context, there should be more focus on intrinsic motivation. Therefore, the focus of this research is on intrinsic motivation, which is considered to be very important for young learners (Dörnyei, 1998; Sugimoto, & Rahimpour, 2006; Gardner, 2007; Gilakjani et al., 2012). Therefore, this research explores the effects of iPad apps in an English classroom of young Malaysian learners, in particular on their intrinsic motivation.

3.2 Research Design

This study employed a mixed approach to assess and measure the effects of apps on the students' learning process and examine the learners' perception of using these apps in the language classroom. This study was carried out with two groups; main and

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comparison.

Data were collected through different resources to increase validity and reliability, including a pre-test, immediate and delayed post-tests, a feedback form, audio recording of all the lessons, and observations by the researcher and one of her colleagues (to increase reliability and avoid bias).

3.3 Setting and Lessons

The lack of intrinsic motivation can be applied to my learners and is supported by the observations and discussions that I have had with them in the private language school in Kuala Lumpur where I teach. This language school offers General English, Business English, and IELTS courses for adults on weekdays and General English courses for young learners on weekends. Most of the young learners who are enrolled by their parents to learn General English in this centre are not interested or motivated to spend their weekends in a language classroom. It has often been challenging to find ways to engage and motivate these students, particularly teenagers, by my colleagues and me. These students were chosen as the participants in this study.

In this research, students of two language classes (at intermediate level) in this private language school were studied over a period of a semester which consisted of 10 weeks. Classes were held every Saturday with each lesson lasting 2 hours. For the duration of the study, 6 lessons were designed for each class. One class was randomly designated as the main group while the other was the comparison group. These lessons were carried out from weeks 3 to 8 of the semester. The lessons in weeks 1 and 2 were used for ice-breaking activities, introducing the course, explaining the study, obtaining parental consent, and conducting of the pre-test (see Appendix D). Weeks 9 to 10 were utilized for the discussions with learners on their learning experience and the delayed post-test (see Appendix D).

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The topic and language focus of each lesson for both classes were the same. The lessons were chosen from and adapted based on the syllabus for the intermediate level at this school. The textbook used for this level was English Mind 4 for a one year period. The syllabus for this semester covered units 9, 10, and 11 which were used as the resource for the designed lessons.

The lessons focused on English vocabulary and grammar, the performance of which was qualitatively and quantitatively measured. The topics of the lessons were phrasal verbs, question tags, reduced relative clauses, indirect questions, music and theatre, and idioms. Each lesson was designed to be learnt in two ways - one using books, papers and traditional activities, while the other learnt through using apps on iPads replacing the traditional activities. The main group was taught using iPad apps while the comparison group was taught with the traditional method. Figure 3.1 below shows the procedure for each lesson from weeks 3 to 8 in the main and comparison groups.

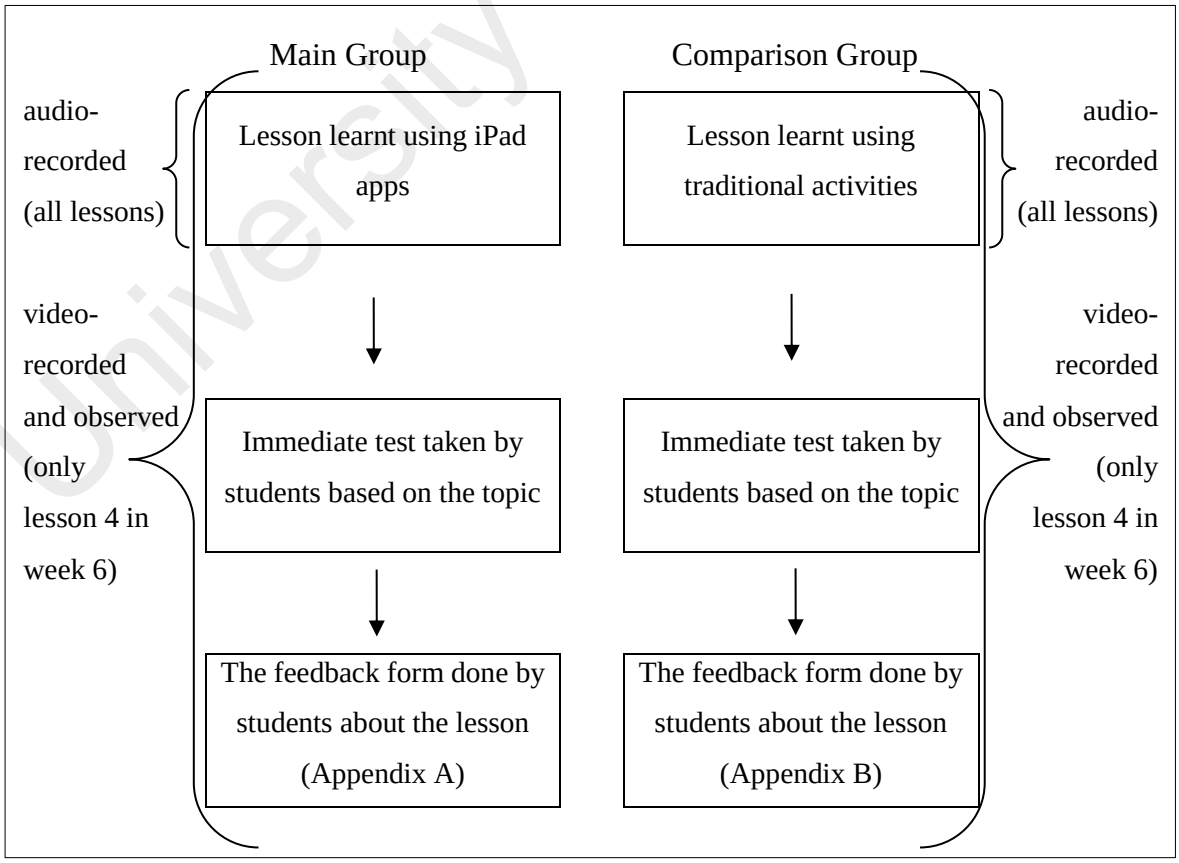

Figure 3.1: Procedure of Each Lesson (Weeks 3 – 8)

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The table on the next page shows the overall course content during the semester from weeks 1 to 10 for both groups.

Table 3.1: The Summary of the Course Content

Week	Lesson:	Apps used for the main group
Week 1	Introduction to the course, the study, and discussion with the researcher / parental consent forms (Appendix K)	N/A
Week 2	Collection of parental consent forms (Appendix K) / introduction and conduction of the Pre-test (Appendix D)	N/A
Week 3	Lesson 1: Phrasal Verbs / immediate test (Appendix E) / feedback form (Appendix A/B)	QR Code Quizlet Bitsboard
Week 4	Lesson 2: Question Tags / immediate test (Appendix F) / feedback form (Appendix A/B)	Sock Puppets
Week 5	Lesson 3: Reduced Relative Clauses / immediate test (Appendix G) / feedback form (Appendix A/B)	BaiBoard
Week 6	Lesson 4: Indirect Questions / immediate test (Appendix H) / feedback form (Appendix A/B)	Word Mover
Week 7	Lesson 5: Music and Theatre / immediate test (Appendix I) / feedback form (Appendix A/B)	Quizlet Bitsboard
Week 8	Lesson 6: Idioms / immediate test (Appendix J) / feedback form (Appendix A/B)	BrainPop Word Mover BaiBoard
Week 9	Discussion with the learners about the lessons	N/A
Week 10	Delayed post-test (Appendix D) / feedback from the learners	N/A

The researcher was also the teacher of these lessons for both groups. The lessons were personally designed and the apps were chosen based on different resources including; resources and ideas from different courses on using apps in the classroom by Cambridge

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English Teacher Website, the outcome of the pilot study, the common iPad apps used in lessons by other colleagues and peers, and the researcher's personal experience. The apps used for the lessons included *Quizlet, BaiBoard, BitsBoard, Word Mover, Sock Puppets, and BrainPop*. These apps were chosen because they were all Apple iPad-compatible and "iPad has been the tablet computer market leader and for the easy global access of apps through the Apple App Store" (Chik, 2014b, p. 254). Some of these apps are also available for Android-operated tablets. These apps were chosen because they were described as vocabulary learning apps on the *App Store* or could be used for the purpose of teaching vocabulary or grammatical structures. These apps are free but some of them also offer paid versions with more available options.

3.4 Pilot Study

A pilot study was carried out in an earlier batch of students at upper-intermediate level in the same language school. The lesson was taught in two groups of main and comparison; one class using iPad apps and the other using traditional method. The pilot study included only one lesson and the results were used to fine-tune the feedback form (see Appendices A and B) and the research questions (see Appendix C, Figures C.1 and C.2). The results of the immediate post-test (see Appendix C, Figures C.2), which was quantitatively measured, showed that students performed better in the main group. The performance and task completion of the students in both groups were observed by the researcher. Overall, it was concluded that students in the main group often completed the activities quicker and with more accuracy.

An informal discussion was held immediately after the post-test with both groups where students were asked whether they enjoyed the lesson and if yes, what added to their level of enjoyment. The students' comments were written down by the researcher throughout the discussion and were analysed afterward. The analysis of the discussion

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focused on the common theme of the words that students used to describe the lesson and how they felt about the activities. Generally, students in the main group were more engaged and expressed positive opinions toward the lesson due to using apps in the classroom.

These results encouraged the researcher to expand the scope of the study and further explore this area. However, the lack of a pre-test during the pilot study meant lack of reliability to some extent for the test results. As a result, a pre and post-test were added to the current study to increase reliability and validity of the research.

In the pilot study, it was also found that the achievements of the male and female learners were markedly different from each other; male learners in the main group scored higher on their tests compared to the females in the same group and the males' average score increased from 9.27 to 9.9 out of 10 (see Appendix C, Figure C.1).

3.5 Applications

Here is the description of apps used for this study as described on the *Apple App Store*.

Quizlet

This educational app allows you to create your own flashcards or choose from the ones created by other Quizlet users on different subjects, including vocabulary. This app is a powerful interactive learning tool which offers different games and quizzes to memorize and practise any flashcard you have created. There is also offline access on this app which allows you access to your flashcards at any time and any place. It is available on different platforms including Android-operated tablets and the web which makes it easy for teachers to use with their classes (Apple App Store, 2016).

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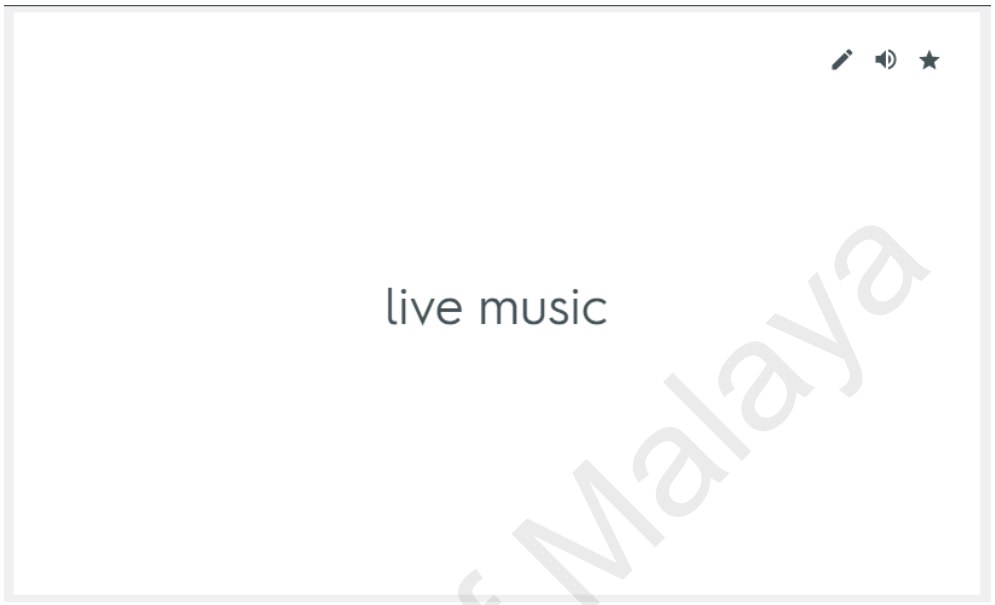
In this study, the researcher created flashcards on Quizlet for the vocabulary relevant to the topic of the lesson. When students clicked on a card on their iPad, they could see the definition on the other side as can be seen in Figure 3.2:



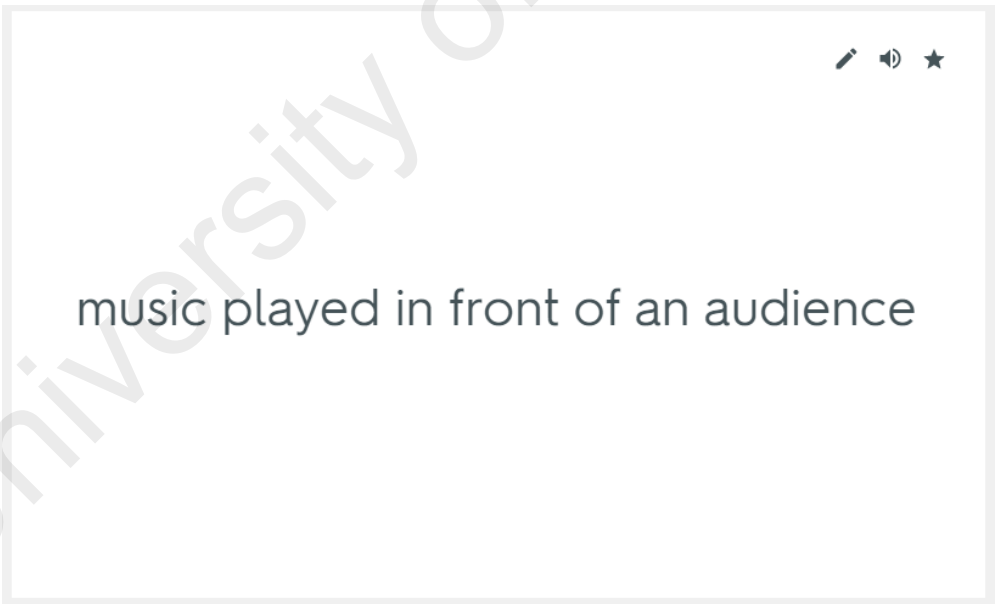


Figure 3.2: Flashcards

Retrieved from: iPad Application- Quizlet

The Quizlet app allows students to play different games such as matching activities and fill-in the gap to practise the vocabulary they have learnt. In Figure 3.3, there is a

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sample of a matching activity from the *Music and Theatre* lesson that can be played on the Quizlet app to practise vocabulary:

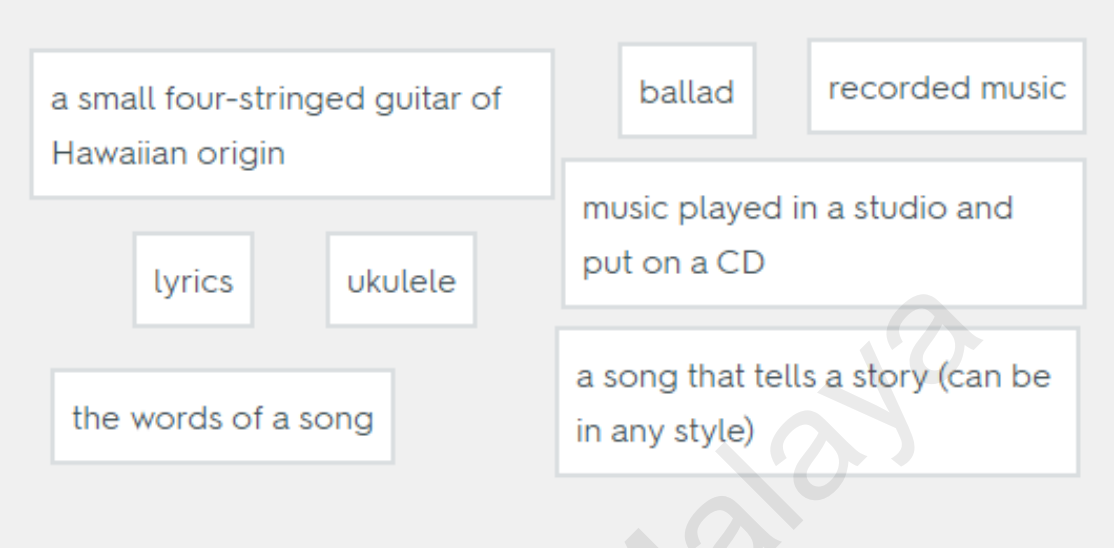

Figure 3.3: Matching Activity

Retrieved from: iPad Application - Quizlet

BaiBoard

This interactive and collaborative whiteboard is cloud-based and allows users to create and collaborate on educational content using collaborative whiteboard, voice conferencing, and other features. It is connected to different cloud services including Dropbox, Google Drive, iCloud Drive, and Evernote that allow users to share what they have created (Apple App Store, 2016). Once a new board is created, users can share the board and have access to different pages of it. They can also insert images and files from the iPad memory or the Internet.

In Figure 3.4, there is an image of a new board page which can be accessible to different users once they have the page ID number:

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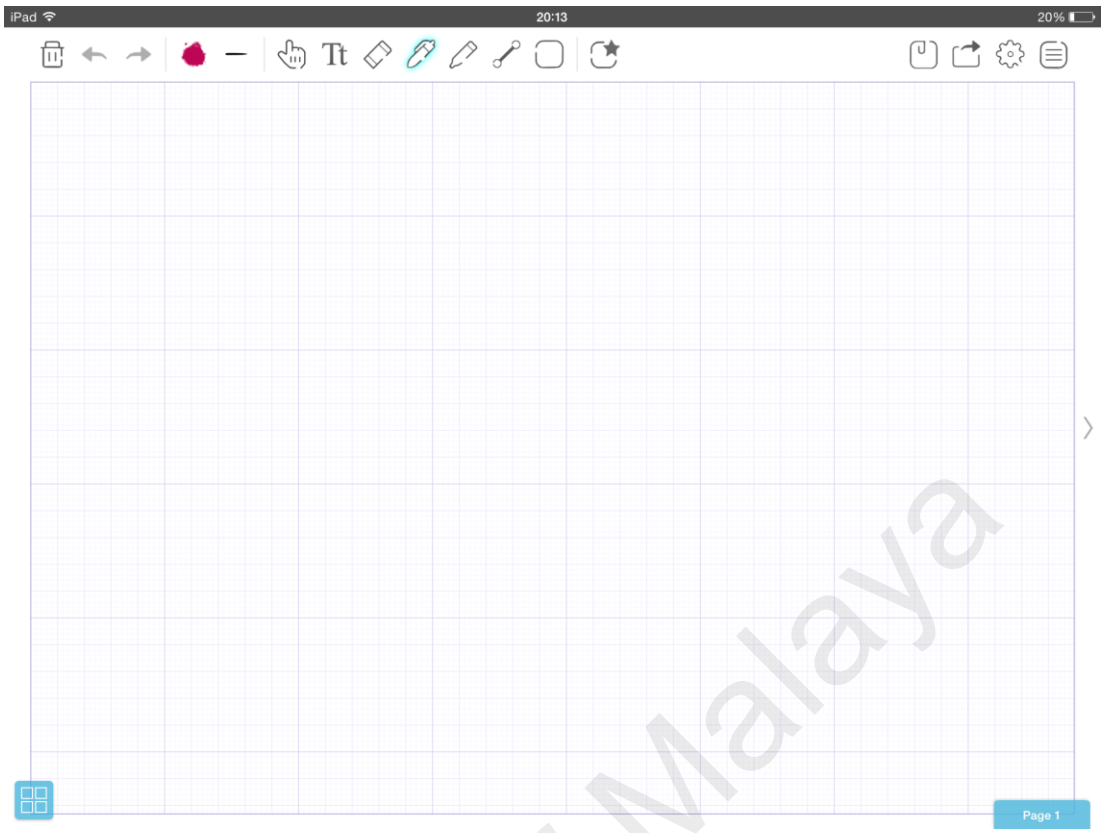

Figure 3.4: New Board

Retrieved from: iPad Application - BaiBoard

BitsBoard

This educational app allows you to create flashcards similar to Quizlet and allows you to study your sets using different mini-games such as sequencing and word search. Bitsboard is an app for learning languages particularly vocabulary. It also offers a BitsBoard Pro version which allows adding multiple users and sharing flashcards with other users (Apple App Store, 2016).

Once an account is created, users have access to a range of games and activities as shown in Figure 3.5:

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Figure 3.5: Games

Retrieved from: http://bitsboard.com/

Word Mover

Word Mover is an educational mobile app from the ReadWriteThink website that contains word banks and is designed to allow students to create 'found poetry' by moving words. It also allows the users to create sentences and phrases using its word banks. This app creates engagement through using tablet devices; however, students can add their own words and create any text they would like using their own created word bank (Apple App Store, 2016).

Once users open the app, they can use the word banks available and create their own work, as can be seen in Figure 3.6:

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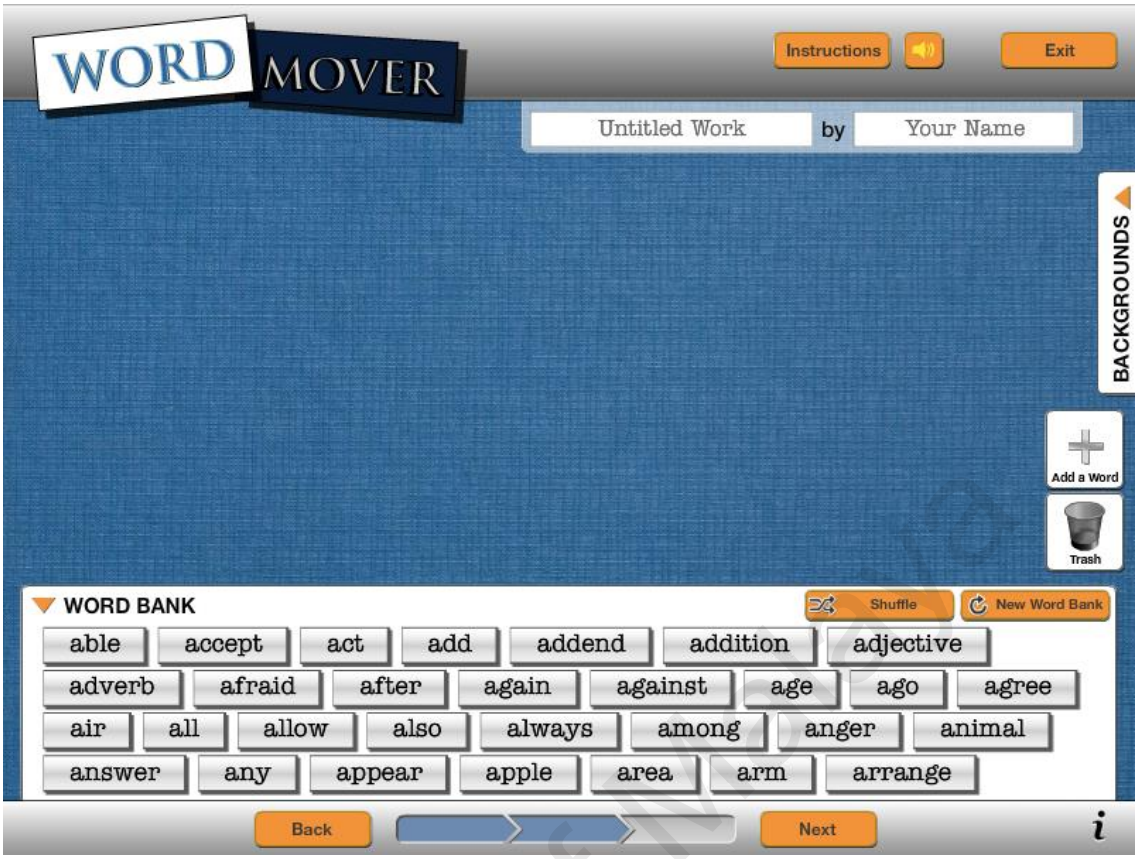

Figure 3.6: Word Mover Template

Retrieved from:

http://www.readwritethink.org/files/resources/interactives/Word_Mover/

Sock Puppets

This app allows you to make your own lip-synched videos and share them on Facebook and YouTube. It offers features such as adding puppets, props, scenery, and backgrounds. The puppets automatically lip-synch to your voice when recording. This app engages students in creating conversations and doing role-plays (Apple App Store, 2016).

Users can create interesting and engaging scenarios using different templates. An example is shown in Figure 3.7:

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Figure 3.7: Sock Puppets Template

Retrieved from iPad application – Sock Puppets

BrainPop

BrainPop, designed for mobile devices as well as the web, features animated movies on different subjects including Science, Math, Social Studies, English, Engineering & Tech, Arts & Music, and Health and has interactive quizzes for learners to test their knowledge. It offers both free and subscribed versions to teachers and students. The subscription option offers a wider variety of animated movies and activities to choose from (Apple App Store, 2016).

Once users choose a topic, they have access to different information, games, and activities which can be done after watching the animated movie on the relevant topic. Figure 3.8 shows a sample page from the website, on a topic that was used in the lesson:

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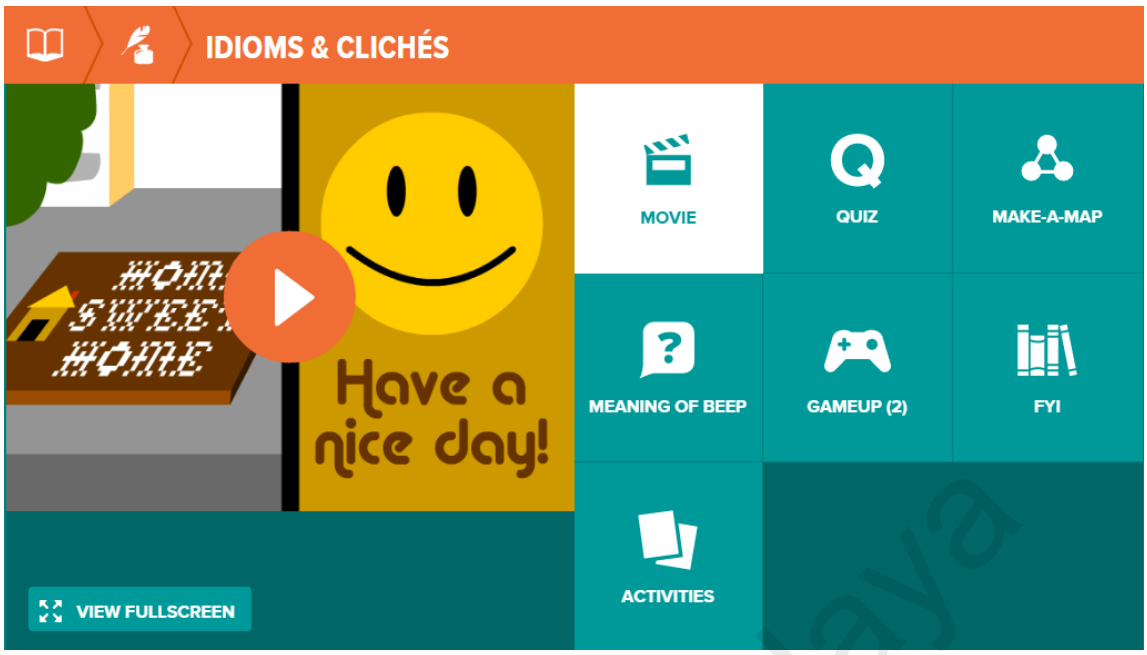

Figure 3.8: Idioms and Clichés
Retrieved from: https://www.brainpop.com/english/writing/idiomsandcliches/

There was an extra app which was used in the first lesson to help the teacher create a jigsaw reading. The app used in the lesson was *QR Code Reader*.

QR Code Reader

This app can be used to scan QR codes (as seen in Figure 3.9), barcodes, puzzles, business cards, documents, and images and take the user to a website, a text, or an image. This app is compatible with Android-operated devices as well.

Figure 3.9: QR Code
Retrieved from the Apple App Store – QR Code Reader

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3.6 Participants

This research involved the participation of 40 students of the same age range (13-15 years old) and the same level of English (Intermediate). All students in this school take a language proficiency test (including sections on vocabulary, grammar, reading, listening, writing, and speaking) and are placement tested at the beginning of a semester. These students were put in the intermediate level based on their results in the language proficiency test. These two classes were randomly chosen from a few classes available with the same age and level ranges. There were 11 males and 9 females in the main group and 8 males and 12 females in the comparison group.

These students attend the English Language classes at a private Language School in Kuala Lumpur on weekends. Each semester is a 20-hour course which consists of 10 sessions for the duration of 2 hours each. The students' parents enrol them in these classes to supplement their English language learning in schools. The learners are Malaysians (a combination of Chinese, Malay, and Indian).

The students are registered in the classes randomly by customer service and based on parents' time preference. Most of these students have been attending classes in this language centre for more than a year (using different books and syllabus) and a few are new students. Students are grouped in a class based on their placement testing results (their language proficiency level) and their age. Students remain in the same level for up to two years; however, the same students do not always remain in the same class after a semester.

3.7 Data Collection

This research collected data from multiple sources to increase validity and reliability of the results, including: a pre-test, immediate post-tests, a delayed post-test, two

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feedback forms, audio recording of the lessons, observations of the lesson filmed by the teacher and peers.

Data was collected from the pre-test carried out in week 2, the immediate post-tests after each lesson in the same session, and the delayed post-test conducted in week 10. The tests were collected and marked by the researcher. The answer keys used for marking were from the same resources used for the tests including the textbook. All the tests and answer keys were checked by the researcher and a colleague to ensure validity.

The feedback forms were created through the Google Drive online platform and students were given access to them at the end of each session by using iPads. All the lessons were audio recorded using a smartphone which was positioned at the back of the classroom for better quality. Students were not informed of this in order to avoid any effect or interference with their performance. One of the lessons was filmed (by a video recorder which was placed at the back of the classroom) and observed by a colleague and the researcher. The detailed description of the data collection tools is as below.

Pre-test (Appendix D)

The participants are of the same language proficiency level (intermediate) based on the results of their placement tests as described in Chapter 3.6. However, a pre-test was done in week 2 to test the participants' knowledge on the topics taught during this research, including grammar and vocabulary. This method is supported by Felix (2016, p. 176) who stated that "by pre-testing all of the students, a baseline can be established for comparison with post-test results" and that "improvements in performance between the pre- and post-test indicate an increase in learning".

The pre-test which was also used as the delayed post-test in week 10 consisted of 85 questions in six sections (A-F) which focused on the topics of the lessons in this order;

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phrasal verbs, question tags, reduced relative clauses, indirect questions, music and theatre, and idioms. This order was chosen from syllabus which was designed based on their textbook. The paper test was administered in week 2 of the semester for 90 minutes. The test questions were combined from different resources including the *Quizlet* and *BrainPop* websites, and the textbook (English in Mind 4) which was the base for the syllabus of the intermediate level. The test questions followed the guidelines for assessing language learners (Pitoniak et al., 2009) and were tested beforehand by the researcher and her colleagues to ensure validity. Students were not provided with the correct pre-test answers after submission since the test was also used as the delayed post-test.

Immediate Post-tests (Appendices E – J)

During the semester, the performance of the students was observed by the teacher during the lesson, such as their task completion quality and time, their interactions and collaborations with their peers, and their motivation and attitude toward technology in the classroom. Notes were taken by the teacher while observing the learners doing the tasks. The lessons were all audio-recorded and analysed later for more information on the performance of the learners. Students' performance was also assessed at the end of each lesson in an immediate post-test (see Appendices E – J). Immediate or "initial" post-tests are employed for evaluation immediately after the lesson so each test was administered on paper at the end of each lesson and took 10 to 15 minutes. The immediate post-tests were designed based on the content of the lessons and the questions were from the same resources and following the same guidelines as the pre-test.

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Delayed Post-test (Appendix D)

At the final session on week 10, students were given a delayed post-test, which was the same as the pre-test, of all the input language (vocabulary and grammar) from weeks 3 to 8 to determine if they had retained what they had learned and to determine which group was more motivated and successful in the process. Delayed post-tests are research tools which are "administered 2 or more weeks after instruction and initial testing to measure knowledge" (Haynie III, 1994, p. 34), therefore, the delayed post-test in this study was done on week 10. The delayed post-test, which took 90 minutes, assessed students on the language input of all the lessons.

The Feedback Forms (Appendices A and B)

All participating students received a feedback form with questions asking for their opinions on the lessons (see Appendices A and B) at the end of each lesson. There were two versions of the same questionnaire; one for the main and one for the comparison group to make the questions more relevant to that particular group. The general template for the two questionnaires was the same with slight differences to take into account the different tools used by the different groups to learn.

The questionnaires were adapted from the Attitude/Motivation Test Battery (AMTB) which was deemed appropriate for this study (Gardner, 1985; 2004). As Gardner points out, the AMTB is an instrument which assesses "the major affective components shown to be involved in second language learning" including "the effects of specific programs on attitudinal/motivational characteristics" (1985, p. 5).

This test has sets of scales which evaluate students' feelings and opinions toward different aspects and concepts related to the second language acquisition. The questions and statements were customized to focus on students' opinions on the methods used in

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both main and comparison groups and their engagement in each lesson. Similar to the AMTB, the feedback forms consisted of statements that students could agree or disagree with (*e.g. question 3 in both groups: I enjoyed the lesson today*) and multiple choices where students chose the option that was most relevant to them (*e.g. question 4 in the main group: I enjoyed the lesson because: a- I liked the topic, b- we used iPads and apps, c- the activities were interesting, d- other:* _____). Moreover, open-ended questions were added to elicit as much information from students as possible. Overall, both questionnaires consisted of 12 questions each; including multiple choices, objective questions, and open-ended questions. They were designed on the Google Drive platform to make the collection and analysis of the data easier and faster.

The purpose of the feedback forms was to examine the effects of replacing traditional methods with iPad apps on the learners' attitude and motivation. Questions 1 and 3 focused on the students' feelings toward the lessons to determine their attitudes while questions 2, 4, and 5 explored reasons for students' positive/negative attitudes and their motivational reasons. Questions 6 to 9 examined students' opinions on the use of iPad apps (in the main group) or books and papers (in the comparison group) in the classroom.

The administration of the questionnaires took place in the classroom at the end of each lesson after the immediate post-tests. The teacher left the classroom so that students could be honest and comment on the lessons without any bias. Altogether, there were 40 students in both groups and the feedback forms were done after each lesson (6 lessons). There were 240 responses to the questions in the feedback forms.

Observation by a Colleague

The learners' level of motivation and attitude was observed by the researcher and a teacher from the same language school and analysed through different means of

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measurements including the two feedback forms, the audio recordings of the lessons, and the observations of the lesson 4 (week 6) which was video recorded by the teacher and peers.

The observer is another teacher at the same language school who has been teaching English for over 15 years. She holds a certificate and diploma in teaching English to adults and young learners from the University of Cambridge. She has also done her MA in English language teaching with the University of Manchester. She has over 10 years of experience in course design, language testing, mentoring, and teacher training.

The fourth lesson (week 6), which was on the topic of indirect questions, was video recorded and observed by the colleague in both groups. The focus of the observer was on the engagement, participation, and performance of the learners during the lesson in the main and comparison groups. Moreover, all the lessons were audio recorded and analysed by the researcher to add the validity and reliability of the observations and lower the possibility of the *Observer's Paradox* affecting the results. According to Labov (1966), "the act of observation itself militates against obtaining the most casual speech styles" which can create the observer's paradox (as cited in Cukor-Avila, 2000, p. 253). This could result in students' performance being affected by the added element of an observer in that particular lesson. Therefore, the other lessons, which were not observed, were also audio-recorded and analysed by the researcher.

Discussions with the Learners

During the lesson in week 9, students had an informal discussion for approximately 2 hours with the researcher and shared their opinions on all the lessons. This was an opportunity for the researcher to collect feedback from the learners in an informal comfortable environment as a whole class and individually. Students were asked how they felt about the lessons during that semester, whether/why they enjoyed the lessons,

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and how they compared them to previous lessons. This was done as a whole class conversation where students were asked to share their opinions. Approximately, 85% of the students volunteered and commented on the lessons taking turns; however, all the learners were highly encouraged to express their ideas.

The comments made by students in both groups were written down and compared focusing on whether students in the main group mentioned iPad apps as one of the main motivational reasons. The researcher took notes of students' comments throughout the discussion session.

3.8 Data Analysis

Data analysis began with marking and collating the results of the pre-test which were recorded to be compared with the delayed post-test results. The next step was comparing the average score of both main and comparison groups in the immediate post-tests after each lesson. The results of these tests were used to quantitatively analyse and compare the performance of the learners in the main and comparison groups by comparing the average performance in each group. The answer keys for all the tests were provided by the resources they were adapted from including *Quizlet* and *BrainPop* websites, and the textbook (English Mind 4). Therefore, the tests were marked by the researcher and checked by a peer using the answer keys. The results of the delayed post-test were calculated and compared to the pre-test in both groups. The results of the immediate post-tests, the pre-test and the delayed post-test were entered into Microsoft Office Excel 2007 and compared using charts.

The feedback forms, the audio recordings, and the observations of the lessons were used to qualitatively measure the task engagement, motivation, and attitude of the learners by exploring the students' level of interest and engagement in the lessons between the main and comparison groups.

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The performances of both groups were examined during the lessons and after, by listening to the audio recordings of each lesson and analysing the students' engagement based on their level of enthusiasm and involvement (Lutz et al., 2006; Lee, 2012). The level of engagement and motivation was determined based on the students' participation in different tasks, the communication between the students while completing the tasks, and the quality of the target language (which here refers to the language input in the lesson) produced by the learners during the lesson. For example, while participating in the task of a role-play using question tags, it was found that students in the main group spent approximately 10 minutes exchanging ideas while writing their scripts. However, students in the comparison group spent only 5 minutes sharing their ideas with their classmates. Overall, students in the main group were more eager and interested in the task and practised it willingly for the second time. Moreover, students in the main group produced more complex and accurate question tags than the comparison group.

Furthermore, one of the lessons (lesson 4) with both groups was filmed and observed by one of the researcher's colleagues to set some objective views and comments of the learners' performance during the lessons which were qualitatively analysed. For example, the observer examined the students' level of engagement and participation by focusing on the comments, facial expressions, and the amount of communication between the learners while completing the tasks. The results and the data gathered from the observations are described in more detail in Chapter 4.2.

The final step was collating and analysing the feedback forms. The data were collected through the Google Drive online platform. The responses given to the feedback forms by students were qualitatively analysed case by case based on the type of the questions; multiple choice and open-ended ones to further explore their opinions and level of interest toward the lessons. The responses to multiple choice questions were

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quantitatively measured based on how many times students agreed to statements or chose an option. Moreover, the comments made by the learners on open-ended questions were examined and categorised based on the theme they related to. For example, the adjectives that students used to describe the lessons and the activities were divided into positive and negative ones and compared to each other in the main and comparison groups. The findings from the feedback forms have been discussed further in Chapter 4.1.

3.9 Ethics

The students were under 18; therefore, a parental consent form (Appendix K) was distributed during the first session to be signed by the parents. The signed forms were collected in week 2 before starting the study. Parents were ensured that their child/children would not be endangered or harmed in any way during this research.

Both parents and the students were told by the researcher that this study was only for the purpose of master's dissertation and would not affect the course syllabus in any way. They were also ensured that the data was only used for this research and subsequent publications, and no personal identifying information would be revealed. The students were also ensured that their class grades would not be affected by their participation and they should feel free to come and talk to the researcher at any point if they wanted.

Moreover, permission was also granted by the head of the school to carry out this study with these classes. This whole process was carried out for both the pilot study and this research.

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CHAPTER 4: RESULTS AND FINDINGS

There have been many studies done on exploring the need for factors that can motivate and engage learners in the classroom for better learning, particularly with younger learners. Based on some studies, there seems to be a correlation between using iPad apps in the classroom and learners' engagement, motivation, attitude, and performance. As Gilakjani (2012) and Itayem (2014) point out, these apps have proven to have a positive effect on the learning process of learners in many different ways. The main purpose of this research was to further analyse the effects of utilising iPad apps as a tool to explore Malaysian learners' engagement, motivation, and performance in a language learning classroom.

In this study, data were collected through different resources including observations, feedback forms, discussions, and pre/post-tests to increase reliability. The data collection was done over a ten-week period which provided the researcher with rich data about how apps can be used to enhance learning and performance of the learners.

The pre-test and the immediate and delayed post-tests measured the performance of the learners in the 6 topics taught: phrasal verbs, questions tags, reduced relative clauses, indirect questions, music and theatre, and idioms.

4.1 Feedback Forms

Firstly, the qualitative part of this research explored the comments from the learners in both groups in depth. The feedback forms (see Appendices A and B) were used after each lesson to examine the opinions of the learners toward the lessons. Altogether, there were 40 learners in both main and comparison groups and the feedback forms were done after each lesson (see Figure 3.1 and Table 3.1). A total of 240 responses were

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collected over the period of 6 lessons; 120 responses from the main group and 120 responses from the comparison group.

In these forms, the learners were asked questions about their opinions on the lessons and activities, how much they enjoyed the lessons, and why they found them interesting or boring. There were 12 questions and some of them were open-ended to allow learners to express their opinions. The learners' responses are analysed in more details here to explore the first research question and if these apps increased the learners' motivation, engagement, and their positive attitude toward the lesson.

Questions 1-3

Question 1 in both forms for all 6 lessons asked learners whether they enjoyed the lesson and the reason for their responses. The first question asked the learners if they enjoyed or did not enjoy the lesson. In the main group, from the 120 responses obtained/collected, it was found that 82.5% of the learners in this group chose the option *"I enjoyed the lesson today"*, 16.6% chose the option *"The lesson was okay"*, and only 0.9% (1 response) chose *"I didn't enjoy the lesson today"*. In the comparison group, about 50% of the learners chose the option *"I enjoyed the lesson today"*, 40.8% chose the option *"The lesson was okay"*, and 9.2% chose *"I didn't enjoy the lesson today"*. These percentages for question 1 for each lesson for both groups are shown in the tables 4.1 and 4.2.

Table 4.1: The percentages for Q1 for the main group
Question 1: Please choose the one that applies the best

Main Group / **Lesson**	**1**	**2**	**3**	**4**	**5**	**6**	**Overall %**
I enjoyed the lesson today.	80	95	70	80	70	100	82.5
The lesson was okay.	20	5	30	20	25	0	16.6
I didn't enjoy the lesson today.	0	0	0	0	5	0	0.9

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Table 4.2: The percentages for Q1 for the comparison group
Question 1: Please choose the one that applies the best

Comparison Group / Lesson	1	2	3	4	5	6	Overall %
I enjoyed the lesson today.	50	50	35	65	50	50	50
The lesson was okay.	45	35	65	25	50	25	40.8
I didn't enjoy the lesson today.	5	15	0	10	0	25	9.2

According to table 4.2, learners in the comparison group showed a significantly lower level of enjoyment for lesson 3 (35%). The focus of this lesson was grammar; reduced relative clauses. This is a rather difficult grammatical structure in the syllabus of intermediate level and that could be one of the reasons affecting the learners' enjoyment. In the main group, the learners used the BaiBoard app and they showed a higher level of enjoyment (70%). The app could be one of the reasons for this significant difference between the two groups for the same topic.

Overall, it can be seen that the level of enjoyment in the main group is higher compared to the comparison group. According to Dörnyei and Clément (2001), *enjoyment* is an integrative element of motivation. Question 3 was formulated to confirm learners' answers to question 1 and the degree to which they enjoyed each lesson. According to table 4.3, which shows the percentage of learners' opinion in all 6 lessons together, it can be seen that 54.2% of learners in the main group strongly agreed that they enjoyed the lessons as opposed to only 8.3% in the comparison group. Overall, approximately 91% of learners in the main group enjoyed the lesson (chose *strongly agreed* or *agreed*) and mostly mentioned using iPad apps as one of the main reasons.

According to table 4.3, overall approximately 59% of the learners in the comparison group enjoyed the lessons (chose *strongly agreed* or *agreed*); however, 33.3% chose *neutral* and 7.5% answered that they *disagreed*. This shows that the level of enjoyment and motivation toward the lessons was lower in the comparison group. Interestingly, the

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learners in the comparison group who chose *neutral* or *disagree* mentioned in question 6 (*I think this lesson would have been better if ...*) that the lesson could have been better if the activities were more exciting. In further discussions with the researcher, some of these learners mentioned iPads or computers as factors that could make activities more interesting.

Table 4.3: The overall percentages for Q3 (I enjoyed the lesson today). SA: strongly agree, A: agree, N: neutral, D: disagree, SD: strongly disagree

	SA	A	N	D	SD
Main Group	54.2	36.7	9.1	0	0
Comparison Group	8.3	50.9	33.3	7.5	0

The percentages for each lesson in both groups are broken down in tables 4.4 and 4.5 below:

Table 4.4: The percentages for Q3 for the main group (I enjoyed the lesson today). SA: strongly agree, A: agree, N: neutral, D: disagree, SD: strongly disagree

Main Group	SA	A	N	D	SD
Lesson 1	65	20	15	0	0
Lesson 2	30	55	15	0	0
Lesson 3	65	35	0	0	0
Lesson 4	25	45	30	0	0
Lesson 5	50	35	15	0	0
Lesson 6	65	35	0	0	0

According to table 4.4, the percentages of the learners who chose *strongly agree* in the main group were lower in lessons 2 and 4; 30% and 25% in that order. During lesson 2 focused on question tags and the Sock Puppets app was used with the main group. Learners showed a high level of excitement about using this app, both in the discussion with the researcher and according to the audio-recording of the lesson. One of the comments that a learner from the main group made during this lesson was *"This*

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is really fun. Teacher, can we use this app again?". Therefore, it is less likely for it to be due to the use of this app. However, the topic is another factor affecting this as learners might not have found the topic of this lesson as enjoyable as other topics. The same thing can be seen in lesson 4 as it had the lowest percentage by only 25% of learners choosing *strongly agree*. The topic of this lesson was indirect questions and the Word Mover app was used during the session. The lower level of enjoyment could be due to the use of this app or the topic of the lesson. During this lesson, more time was spent on the activity set-up when learners typed the words on the iPads in order to create direct and indirect questions. This was time-consuming and some of the learners in the main group (according to the audio-recording of the lesson) exclaimed phrases such as *"oh my hands!"* and *"Teacher, so many words".* The factor of time could have affected the learners' level of enjoyment. On the other hand, it could have been due to the topic of the lesson as well.

Table 4.5: The percentages for Q3 for the comparison group (I enjoyed the lesson today).
SA: strongly agree, A: agree, N: neutral, D: disagree, SD: strongly disagree

Comparison Group	SA	A	N	D	SD
Lesson 1	25	35	15	25	0
Lesson 2	0	40	40	20	0
Lesson 3	5	45	35	15	0
Lesson 4	0	35	45	20	0
Lesson 5	35	25	40	0	0
Lesson 6	20	40	25	15	0

Similarly, learners from the comparison group showed lower level of enjoyment in question 3 for lessons 2 and 4 (see Table 4.5). The comparison group did not use any apps; therefore, it is more likely that this was due to the topic of these two lessons; question tags and indirect questions. The topic could have been particularly difficult and possibly less interesting for the learners.

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In question 2 in both forms, learners were given options as reasons for their responses (see question 2, Appendix A). Learners were given multiple choice options as mentioned below and were encouraged to choose as many as apply, hence overall there were more than 120 responses per each group. The options were:

- *The topic was on something I can relate to.*
- *The topic was on something I am too familiar with.*
- *The activities were interesting.*
- *The activities were boring.*
- *The apps used in the lesson were interesting.*
- *The apps used in the lesson were boring.*

The last two options were only for the main group and were not mentioned in the comparison group to avoid creating bias. From the overall responses of all the six lessons, the highest response chosen by the learners in the main group was *"The apps used in the lesson were interesting"*. Out of all the responses during the 6 lessons (maximum of 120 responses for each option as they could choose more than one option), learners chose this option 100 times. The second highest was *"The activities were interesting",* which was chosen 93 times. The third choice was *"The topic was on something I can relate to"*, selected 65 times, and the fourth highest was *"The topic was on something I am too familiar with"*, chosen 14 times. The learners selected "*The activities were boring"* only twice and *"The apps used in the lesson were boring"* only once.

In the comparison group, the highest response chosen was *"The topic was on something I am too familiar with"* chosen 70 times. However, as mentioned in Chapter 3.6, the learners who were not new to the centre did not study the same textbook or the same units in their previous semesters. Therefore, this 'familiarity with' the topic could

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be due to exposure to similar topics in previous textbooks. The second highest choice was *"The topic was on something I can relate to"*, selected 21 times, and the third highest was *"The activities were interesting"*, chosen 13 times. The learners selected "*The activities were boring"* 11 times. Overall, the element of *interest* was higher in the main group which involved both the activities and the apps in the lesson. Interest is another defining element in increasing intrinsic motivation and positive attitude (Dörnyei & Clément, 2001).

The number of choices in the main group regarding the activities and the apps being interesting was the highest in these three lessons; phrasal verbs (lesson 1), question tags (lesson 2), and music and theatre (lesson 5). This higher level of interest was reflected in their immediate post-test to some extent as the learners scored higher on average in the same three lessons. Therefore, the element of interest possibly affected their level of instant achievement.

The number of times the learners in each group chose the options in question 2 are broken down for each lesson in tables 4.6 and 4.7 (see Table 3.1 for the lesson topics and apps used in each lesson).

Table 4.6: Learners' choices per lesson for Q2 for the main group (Please choose as many as apply).

		Out of maximum 120 times						
Options:	**Lesson No.**	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
The topic was on something I can relate to.		9	9	10	12	15	10	**65**
The topic was on something I am too familiar with.		2	3	4	1	2	2	**14**
The activities were interesting.		14	17	13	14	20	15	**93**
The activities were boring.		0	0	1	1	0	0	**2**
The apps used in the lesson were interesting.		20	15	16	16	18	15	**100**
The apps used in the lesson were boring.		0	0	1	0	0	0	**1**

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Table 4.7: Learners' choices per lesson for Q2 for the comparison group (Please choose as many as apply).

		Out of maximum 120 times						
Options:	**Lesson No.**	**1**	**2**	**3**	**4**	**5**	**6**	**Total**
The topic was on something I can relate to.		2	0	5	5	5	4	**21**
The topic was on something I am too familiar with.		12	11	12	11	10	14	**70**
The activities were interesting.		2	1	0	0	6	4	**13**
The activities were boring.		0	0	1	2	3	5	**11**

In the main group, the highest number of times that learners chose the apps to be interesting were lessons 1 and 5. The apps used for these lessons were Quizlet (lessons 1 and 5) and Bitsboard (lessons 1 and 5). Both of these apps are used for creating flashcards and practising vocabulary. This could mean that flashcard apps create more interest in a lesson. According to Figure 4.2, learners scored higher in lessons 1, 5, and 6 compared to the other lessons. Therefore, the higher interest in the app used for the lesson could have led to better performance in the immediate post-tests.

Questions 4-5

In questions 4 and 5, learners in both groups were asked why they enjoyed or did not enjoy the lesson and 43.9% chose iPad apps as the reason for enjoying the lesson; whereas, 25.5% of the learners in the comparison group said that their reason for not enjoying the lessons was using the materials in the book.

This was reflected in the discussions with the teacher during weeks 9 to 10 about how the learners liked the lessons and they mentioned that they would have enjoyed more exciting activities. When asked, what factor they considered to add to the excitement of the activities, the majority of the learners said that using computers and iPads would have made the games more exciting.

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The learners in these groups were not informed of the purpose of the study focusing on the use of iPad apps. Furthermore, the learners in the comparison group were not aware of the use of iPads with the other group either. However, some of these learners have been attending this private language school for quite some time where iPads are often used by teachers for different projects so they might have had the experience of using them in previous lessons.

Questions 6

Question 6 was focused on what learners thought would have made the lessons better in both classes. This was an optional question and 106 responses (maximum possible responses was 240) were received throughout the whole 6 lessons. Approximately 100 of responses were from the comparison group where they mentioned using iPads/apps/technology as the main way to make the lessons more interesting. The second highest idea mentioned by the learners was having more interesting activities or using computer/online/iPad games. The finding here was reflected in the opinions expressed during the lessons and discussions (see section 4.2).

Question 7

Question 7 was different for the two groups. In this question, learners in the main group were given this sentence to complete; *"Using iPads in the classroom..."* and the learners in the comparison group were given this sentence; *"Using books and papers in the classroom..."*. Learners were given a few options including, *it encourages me to pay attention, it helps me learn better, it does not affect my learning in any way, it distracts me and I lose focus,* and *it stops my learning process*. There was an extra option for them to add their own comments. They were encouraged to choose as many as apply. The main group produced 147 responses and the comparison group produced 130

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responses overall. The numbers of times the learners chose one of the options are shown in table 4.8.

Table 4.8: The comments completing Q7 for both groups

Using iPads in the classroom…	**Responses**	**Using books and papers in the classroom…**	**Responses**
It helps me learn better.	72	It helps me learn better.	50
It encourages me to pay attention.	36	It encourages me to pay attention.	25
It doesn't affect my learning in any way.	38	It doesn't affect my learning in any way.	40
It stops my learning process.	1	It stops my learning process.	15

In the main group, the learners chose *"It encourages me to pay attention"* about 36 times, which is surprising considering the fact that some of the teachers in this language school think technology would distract learners in the classroom. The element of distraction as a disadvantage to technology has also been mentioned in some studies (Clark, 1983; Granito & Chernobilsky, 2012).

The option *"It helps me learn better"* was chosen 72 times by the learners in the main group; however, they chose *"It doesn't affect my learning in any way"* about 38 times, which could mean that these apps did not affect the attitude of all learners in a positive way. The option *"It stops my learning process"* was mentioned only once, while the same option was mentioned 15 times in the comparison group. Overall, learners in the main group showed a more positive attitude toward the apps as opposed to the attitude of the learners in the comparison group toward books and papers.

There were not many added responses here, although among some of the comments mentioned were *"It is cool/good"* or *"It is fun"* which were repeated a few times over the period of 6 lessons.

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Questions 8-9

These four questions were different in the two groups. The learners in the main group were asked whether they agreed or disagreed with the statement *"I think I learn more when we use iPads and apps in the classroom"* and the statement for the comparison group was *"I think we should only use books and papers in the classroom"*.

In all the responses from the main group, about 116 out of the total of 120 responses said that they agreed that iPads helped them learn better. The responses from the learners mentioned reasons such as making the lesson more interesting and fun, learning faster and more efficiently, getting the learners' attention and helping them focus, allowing them learn more information and more in depth, more interaction with other learners, saving paper, etc.

The majority of the learners believed that not only do iPad apps make the lessons more interesting, but they also help them pay attention, which was mentioned over 50 times. It is obvious that they do not only prefer apps due to the element of fun but also consider them as aiding their learning. This shows that learners have considered apps to be engaging and useful in their learning.

There were 14 responses disagreeing with the use of iPad apps in the classroom but there were only two reasons given; one saying iPads can be distracting and the second one pointing out that iPads were no different from books. However, these comments were more focused on the iPads rather than the apps.

In the comparison group, there were about 10 responses out of 120 that chose *agree* or *neutral*. A few of these responses mentioned that books and papers added to the variety of the activities. This is in contrast with the fact that most studies consider books to provide limited options and technology as the factor that can add to the variation of

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activities in the classroom (Woolfolk-Hoy & Hoy, 2009). There were 110 responses mostly mentioning that books were boring and it was also a waste of paper and trees. The word *boring* was mentioned almost 100 times which can be the reason for the lower level of engagement in the comparison group. However, the word *boring* could have been applied to many different elements in the classroom such as the books and the activities, as most responses did not explain what the boring factor was. Some of the learners mentioned that iPads and computers could replace books to make lessons more fun. As mentioned earlier, these learners have previously been exposed to the use of technology in the classroom and that could be the reason these learners mentioned iPads as a replacement for books. A few comments said that *"living in modern times means we can use computers"* and *"we can replace books with more interesting and modern things like iPads"*. These comments show that learners connect with technology more than books and see a higher relevancy to their lives outside the classroom.

Questions 10-11

These questions focused on the age and the gender of the learners. The purpose of these questions was to categorize the responses of the learners into the main and comparison groups for the data analysis and for the researcher to be able to look at the responses individually. The learners were asked by the teacher that their names were only for this purpose so they could be as honest as they could with their answers.

Question 12

Question 12 was an open-ended one asking learners to add any extra comments they had about the lessons. This was an optional question to let learners add anything that was not mentioned in previous questions. There were 36 responses to this question from both groups over the whole research.

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20 of the total responses were from the learners in the main group mentioning that they generally enjoyed using iPads in the classroom and the learners of both groups saying that they enjoyed the topic of the lesson. They particularly mentioned the topic of music and idioms. As can be seen in Figure 4.2, learners generally performed better in the two final sessions; music and theatre, and idioms. The learners from the main group mentioned in these comments that they found the topic of music and idioms very interesting and had enjoyed the activities. The activities in these two lessons, in both groups, were designed using flashcards, on apps or using paper. In the main group, learners used the Quizlet and Bitsboard apps to study the vocabulary and create flashcards for practice (see section 4.2; Lessons 5 & 6). It implies that apart from an interesting topic, the variety of the activities due to using iPad apps had increased the positive attitudes of the learners toward the lesson and their sense of achievement as they had commented *"I enjoyed the topic of music and learned a lot today because of the iPad games".*

There were many positive comments in this question from the main group saying that they loved the activities which also showed positive attitudes toward the lesson. One of the learners in the main group had said *"I think I learned something today"* in the lessons on idioms and this supports the idea above.

There was only one response from one of the learners in the main group saying *"I wish we did some exercises from the book as well".* This possibly means that using traditional methods is still interesting and engaging for some learners.

The overall comments and feedback given by learners support the idea that most learners found the apps engaging and motivating which created a more positive attitude. Furthermore, the learners in the comparison group showed a lower level of engagement because of the use of books and papers, which was verified through the class

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observations (see section 4.2). This created a less positive attitude towards the lessons in the comparison group.

4.2 Recordings, Observations, and Discussions

The data gathered through these methods (audio/video recordings, observations of the researcher and her colleague, and the learners' discussions with the teacher) were combined here and analysed in an overall perspective as well as separately under each lesson in order to put all the findings together and better support the data found.

The performance of the learners in both groups were examined and analysed by the researcher. All the lessons in both groups were audio recorded, transcribed, and analysed by the researcher. One of the sessions was also video recorded and observed (see Figure 3.1 and Table 3.1) by the one of the researcher's colleagues to ensure reliability and avoid any biased opinions and set objective views on the learners' engagement, performance, and task achievement.

As mentioned before, one element of motivation is *engagement*, or more accurately *task engagement*. According to Lee (2012), task engagement is about the flow of the lesson and the involvement of the learners. Csikszentmihalyi describes *flow* as the "learners' states in which they become absorbed in a task to the extent that they lose track of time and place" (Lee, 2012, p. 8). During the study, the researcher noticed that learners were involved and engaged in both classes; however, the level of engagement and participation in the main group was more compared to the comparison group. Learners in the main group interacted more with each other, were more absorbed in the tasks, and used the target language (which here refers to the language input in the lesson) more often and more accurately. The communication between the learners in the main group was more and they worked better together towards task achievement. This was shown in the time they took to complete a task, and the quality of their task

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achievements. This quality was reflected in their better results in the immediate post-tests compared to the comparison group.

Generally, students in the main group showed more engagement because of the apps and mentioned during the discussions that using apps helped them learn better by saying phrases such as *"I think using fun iPad applications would help me learn better"* and asking *"Why some of the teachers are not using the iPads in the lessons more often"*.

In addition, background information was collected on the learners' level of participation from the previous teachers. Furthermore, the two first sessions were spent on getting to know the learners and their interaction patterns. As a result, the researcher noticed that the learners who were known as quiet and shy and who did not participate in activities as much as the others showed more interest and enthusiasm when apps were used and got more involved in the activities.

The audio recordings of all the 6 lessons in both groups were listened to and analysed in more detail by the researcher focusing on different factors including students' statements, timing of the activities, level of the noise, and the accuracy of the language which was produced by learners based on the grammar/vocabulary input during the lesson. The researcher focused on the details of each lesson and noticed that there were differences in the two groups in each area such as the time spent on giving instructions and task completion.

It was noticed that in the main group, the teacher spent some time on setting up the tasks since it was more difficult to use apps on the iPads. For example, in the first session which was about phrasal verbs, the learners did a jigsaw reading, where parts of the text were put into QR Codes (see Figure 3.9) and put around the classroom. Learners walked around the room scanning the code and reading different parts of the

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text to reconstruct it. The set-up of this activity in the classroom only took 5 minutes; however, learners needed more help as they were walking around the classroom and scanning the codes to read parts of the text. Some of the learners struggled with how to use the app or in which way hold the iPad to scan the code. On the other hand, in the comparison group, parts of the text were printed on different pieces of paper and put around the room. The set-up of the activity in the classroom took 3 minutes and learners did not have any problems with reading the texts around the classroom since they were not using any apps and it was a familiar activity for them. Moreover, more time was spent on creating the QR codes for the lesson compared to printing the text on paper.

Lesson 1: Phrasal Verbs

During the first lesson with the main group, learners did a jigsaw reading activity by walking around the classroom, scanning the QR Codes, and reconstructing a text. This text was used to introduce the topic of the lesson and a specific set of phrasal verbs. After reading the text and identifying the phrasal verbs, a flashcard activity was set up using the Quizlet app. The purpose of this activity was for learners to study and learn the phrasal verbs from the text. The teacher spent about 5 minutes setting up the activity and learners spent 15 minutes studying the flashcards and doing the practice activities. The app gave learners the choice of going back to the study set when they failed to do a practice successfully. It was noticed that learners in the main group kept going back to the study set regularly to check particular phrasal verbs. However, with the comparison group, the teacher set up the activity and gave the instructions in about 3 minutes as learners were more familiar with flashcards on paper and the learners spent 10 minutes studying and practising the flashcards before they had finished the activity. While doing this activity, learners in the main group showed more interest and excitement by expressing phrases such as *"Yay, iPad flashcard"* and *"exciting"* when the teacher set

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up the activity and when studying the flashcard set as opposed to the comparison group where learners did not say anything or show any facial expression that could be a sign of excitement. However, they got interested when they got to the practice stage of the lesson.

While learners in the comparison group were studying the phrasal verbs in flashcards, the teacher drilled the pronunciation chorally and individually when learners were studying. In the main group, however, learners could listen to the recording of the teacher pronouncing the words on the app over and over again on their own. In both groups, learners could ask the teacher to repeat the words or listen to the recording but in the main group, learners kept playing the recording and listening to it because they found it interesting and as a few of them said "*This is funny and interesting*" so it encouraged them to listen many times. In the comparison group, learners practiced the pronunciation while the teacher drilled a few times but nobody asked the teacher for any more repetition. It could be that they were too shy to ask or they found this activity boring.

During the activity set up for using Bitsboard app in the main group where learners could design their own set for practice, learners expressed more instant enthusiasm and excitement by mentioning how the variety of the options was interesting for them as compared to the same activity set-up using paper flashcards in the comparison group. Learners in the main group tended to ask the teacher or their classmates more questions about the activities. The learners kept speaking in English even when communicating with their classmates. It meant that the set-up of the activities was more challenging, but it also meant that there was more interaction between the learners and the teacher in English.

In the main group, the app also gave learners the possibility of recording themselves

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pronouncing the phrasal verbs when creating flashcards which gave the teacher the opportunity to give learners more feedback on their pronunciation as students played their own recordings while practising with the flashcards. In the comparison group, however, this was more limited as the teacher did not have many chances of hearing learners pronouncing the words in order to give them feedback. The teacher drilled the phrases chorally and individually a few times but the learners did not have any option to record themselves while creating the set of flashcards on paper.

In the main group, learners spent about 15 to 20 minutes creating their flashcards and practising with them. Teacher gave instructions on how to use different features of the app and it was rather quick for the learners to find pictures online or type in their definitions. After that, they swapped their sets with other groups in the class to practise more. It was observed again that learners expressed surprise and interest by using phrases such as '*wow*' and '*This is amazing*' while practising with their classmate's sets. The comparison group took more time creating their flashcards as it was slower using papers and writing their definitions on the papers which meant fewer opportunities for swapping and practising. The learners in the comparison group spent 25 minutes creating and practising with their flashcards. When the groups swapped their sets, the learners did not say or show any particular emotions or excitement.

During the 10-minute break, almost all of the learners in the main group chose to stay back in the classroom to continue the practising. Most of the learners in the comparison group, however, chose to leave the classroom and have a break. Those who stayed back did continue practising and did their personal activities.

At the end of the practice, when the teacher asked the learners how confident they felt about having learnt and using the phrasal verbs in the future, a few learners in the main group shouted '*very very confident*'. There was no clear or obvious response from

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the comparison group.

Lesson 2: Question Tags

The second lesson focused on using question tags in a role play activity. In the comparison group, the role play was done in pairs where learners wrote the script and practised it. In the main group, learners used the Sock Puppets app to role play their conversations. Based on the recordings, learners in the comparison group did the role play once and were reluctant when the teacher asked them to practise it again. It is noted that they had a good level of accuracy when using question tags in their practice and produced grammatically correct sentences and questions. However, the learners in the main group did the role play willingly for the second time when asked by the teacher and some of them asked if they could practise it again using different characters on the app. They were using the tag questions with more accuracy compared to the comparison group by the end of the lesson. In addition, their willingness to practise the conversation more gave the teacher more opportunities to give them feedback and correct their errors.

Lesson 3: Reduced Relative Clauses

The third lesson also focused on grammar; the relative clauses. This was a more challenging lesson as it analysed the reduced relative clauses as well. In this lesson, the learners in the main group used the BaiBoard app as an interactive whiteboard where they wrote a text using reduced relative clauses. In the comparison group, the teacher used A3 papers where learners wrote a text using relative clauses, the same as the main group. However, using the BaiBoard gave the teacher the ability to observe the progress of the learners more easily as she had created the group and had access to all the pages on her computer as well. As a result, the teacher could give immediate feedback to learners, which is important to their learning. It also meant that learners could look at

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the work of other groups from their own iPad by flipping through different pages. Similarly, in the comparison group, the teacher asked the learners to walk around and look at the work of other groups for more help. However, most learners did not feel comfortable doing this. In the main group, since it was so easy to go through pages from their own iPads, learners felt more comfortable to look at the other texts for help as it was less intrusive. They also mentioned this at the end of the lesson in a discussion with the teacher. This could be very useful for learners who are shy and who do not feel comfortable speaking directly to other groups in the class.

Lesson 4: Indirect Questions

The fourth lesson focused on grammar, specifically on indirect questions. The aim of the lesson was to help learners learn and practise the structure of indirect questions. Learners also practised changing direct questions into indirect ones by focusing on word order. The app used for this lesson was Word Mover which allowed learners in the main group use the words to create direct and indirect questions. Learners in the comparison group used words on cards for the same activity.

This lesson was both audio and video recorded in both groups. This lesson was observed by one of the researcher's colleagues. The observer made a general point on observing the two classes:

> *- Overall, learners were motivated and engaged in both classes. They were generally on task, were producing the target language and working together well.*

The aim was using indirect questions accurately by the end of the lesson. The observer explained that learners in both groups made attempts in using indirect questions in the final activity and they were mostly successful.

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The observer then focused on motivation, task engagement, participation, and task completion of both groups and said:

> *- Even when the teacher left the room for the break, the main group was still engaged and fully on task, while the comparison group mostly took a break and stopped doing the task.*

It was observed that the learners in the main group were involved in the task and there was a flow to the task completion as learners were absorbed in the task. As mentioned earlier, flow and involvement are the factors that increase the level of learners' engagement (Lee, 2012). Furthermore, the observer noticed that;

> *- In the comparison group, there was less instant enthusiasm when the teacher gave out the cards. The learners in this group did not react to the set-up of the activity instantly or showed excitement. However, when the teacher gave out the iPads in the main group, learners got excited and a few of them expressed it by saying 'wow' or 'awesome'. This showed more instant enthusiasm towards the activity set-up which later on developed into more involvement and engagement in the task. Despite the less instant enthusiasm in the comparison group, learners still showed signs of involvement and completed the task and learners in both groups made attempts towards using indirect questions. However, as the activity went on, the learners in the main group showed more constant involvement in the task as compared to the comparison group and the level of flow and engagement was higher which was shown in how they expressed excitement by mentioning that the activities were nice and interesting and based on their facial expressions too.*

The observer then analysed the learners' focus and attention and mentioned that:

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- Learners in the comparison group became less engaged towards the end of the card matching activity. This was apparent as some of the learners stopped doing the activity or got distracted by their phones and the teacher had to remind them to set their phones aside. This distraction and lack of engagement did not happen towards the end of the same activity in the main group. The learners stayed engaged and kept practising until the teacher stopped the activity. This is possibly due to the fact that the iPads held the learners' attention for longer than the cards.

However, there is a downside to the use of the iPads as the observer commented;

- In the main group, learners did not tend to listen to each other very well when they were reading out their sentences and forming indirect questions. They were more focused on their own iPads than the speaker when working in pairs.

- Learners in the main group were less attentive when the teacher were giving them whole class feedback on their mistakes in making indirect questions, as they were playing with the iPad rather than listening to the teacher. The teacher had to instruct the learners a few times to draw their attention to the task instructions.

One of the implications here is that even though 36 responses in question 7 in the feedback form from the main group mentioned that iPads encourage them pay more attention (see Table 4.8), there is a possibility that learners actually pay less attention due to the distraction caused by the iPads. However, it shows that the learners consider the apps to help them with their learning and that they have a positive approach towards these apps despite the fact that the iPad might actually distract them at points.

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Lesson 5: Music and Theatre

The fifth session focused on the topic of music and the related vocabulary. Learners used the Quizlet and Bitsboard apps to practise with flashcards, similar to the second lesson focusing on idioms. In this lesson, the teacher spent the same amount of time giving instructions in the main group as well as the comparison group. Since learners were familiar with the apps, this meant less time spent on the instructions and more time for practise. As mentioned earlier, this showed that despite the fact that planning and setting up activities could take longer at the beginning, once the teacher and learners became familiar with the apps and how to use them, this process became quicker and easier.

Similarly, in this lesson, the learners were more excited about the activities in the main group. However, learners in both groups found the topic really interesting and were really engaged. This was also mentioned by some of the learners in question 12 in the feedback form as they added extra comments including; *the topic of music was interesting, I liked studying more about music vocabulary, I enjoyed the lesson on music,* etc.

The researcher decided that the level of target language produced in this lesson, which was role playing a conversation revolving around music, was almost the same in both groups. Learners in both groups were using the vocabulary from the lesson accurately and in the right context. They were also able to pronounce the words accurately. The general task achievement was good as there was a flow to the task when learners were practising the conversation. The learners did not have any difficulties in role-playing the conversation and showed confidence while recording themselves. This

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was also a lesson that both groups scored really high on in their immediate post-tests (see Figure 4.2) and both groups also scored higher in this section when doing the delayed post-test compared to the pre-test (see Section E in Appendix D). It is noted that learners in the main group scored slightly higher but this implies that overall, when learners are highly interested in the topic, they can learn better regardless of whether they were using the apps or not. This could decrease the effects of apps in learners' engagement and performance when the level of motivation is very high due to the strong interest in the topic itself.

Lesson 6: Idioms

The focus of the last lesson was on vocabulary and the topic was on idioms. In this lesson, learners watched a video on BrainPop and the task was to rebuild the idioms from the video and further explore other idioms using some of these words. In the comparison group, more time was spent on preparing the set of cards which learners used later in the classroom to put in the right order to create idioms. In the main group, the Word Mover app was used and these words had to be typed in the app by the learners and this took 15 minutes to be set up before learners started doing the activity. This meant that teacher did not need to prepare the cards and print them in advance and the preparation time for this stage of the lesson was shorter; however, the teacher had to allocate more time to the set-up of this activity in the classroom with learners at the pre-activity. Learners responded well to this pre-activity stage by getting involved in typing the words and not getting distracted but it was a time consuming stage. The learners in the comparison group used these idioms at the end of the lesson in a poster on a paper and they presented it. In the main group, learners used the BaiBoard app where they designed their poster online and presented it using a projector. This task was engaging in both groups and learners made creative posters by the end of the lesson. It was

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generally noticed that the learners in the main group were noisier and sounded more excited while doing the activity while the learners in the comparison group were quieter and talked less with each other. However, this could also be a sign of being more focused in the comparison group.

4.3 Planning Efforts/Considerations

The process of planning and preparation of the lessons generally proved to initially take longer for the main group. Certain apps and activities required more time to plan and execute. In the classroom, learners needed more time to familiarize themselves with the apps and learn how to use them. In the comparison group, learners were more familiar with activities as these activities have been used by other teachers in class and most learners have been exposed to them.

On the other hand, once the learners became familiar with the apps and learned how to navigate through them, it took the same amount of time to set up activities in the classroom for both main and comparison groups. This implies that despite the need for teacher training and preparation before bringing iPads to the classroom, they prove to be less time-consuming over a longer period of time. Once learners learn a skill and feel confident about it, for example using different apps, sustained engagement is created which can lead to a positive learning experience and result in better performance (Irvin et al., 2007).

4.4 Pre-test and Delayed Post-test

The scores of the learners in both groups were entered into a spreadsheet for analysis. Both groups showed improvement in their delayed post-test. However, Figure 4.1 shows that the main group, where the apps were used, scored higher on their delayed

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post-test by an average of 11 out of the overall score of 85. This progress was achieved over a limited time of 8 weeks (from week 2 to week 10 – see Table 3.1).

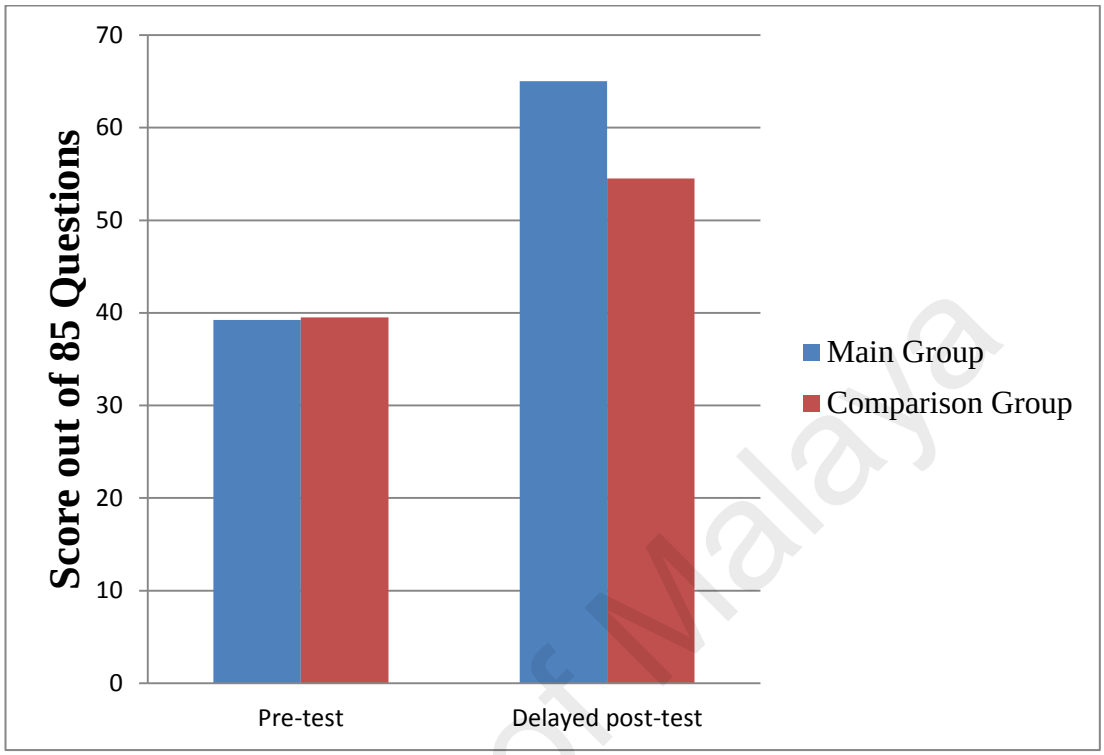

Figure 4.1: The average score of pre-test and delayed post-test (Overall score: 85)

4.5 The Immediate Post-tests

The results of the immediate post-tests were also compared and from Figure 4.2, it can be seen that the main group performed slightly better in all of the 6 immediate post-tests which were carried out after each lesson. As it can be seen, the main group achieved better results by an average of 0.9% in the immediate post-tests. According to Figure 4.2, the performance of the main group is only slightly better but this is a constant element throughout the 6 lessons and it could imply that the effects of these apps are consistent.

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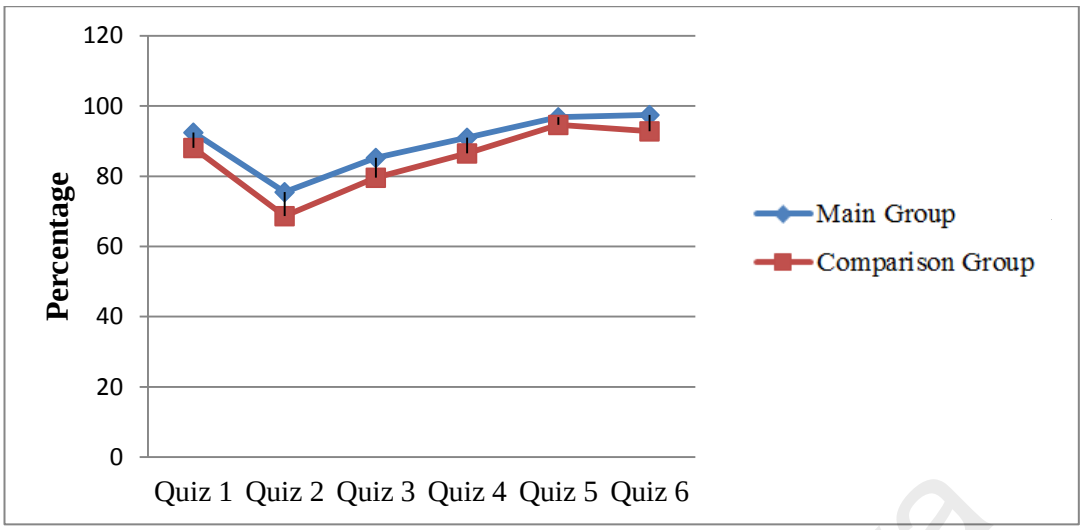

Figure 4.2: The results of the immediate post-tests

4.6 Summary of Chapter Four

Different studies exploring the roles of iPads in the classroom have shown that "the iPad is a true mobile learning device, not simply a novelty" and can be used in the classroom for a better learning experience (Park, 2013, p. 41). In this study, the researcher investigated the effects of apps on the level of engagement, motivation, attitude, and performance of the learners rather than the iPad itself. The iPad is considered as a tool to create access to these educational apps.

In this chapter, I have shown that learners showed an increasing interest and engagement when different apps were used in the classroom. Although there were many different factors that could affect the results, the consistency of their motivation and better performance shows that apps were a main factor. The findings were also gathered through different resources to increase reliability and add to the level of consistency.

Another important factor is that the teacher should consider the possible obstacles for the learners and their needs during the lesson if these apps are used in the classroom. Some of these obstacles and considerations are more relevant to the teacher, such as activity set-up time. However, it might be challenging for the learners to navigate

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through using new apps and it might take some time for them to become familiar with these apps and use them more effectively.

Overall, It is important for teachers to be aware of the resources and activities and how to use them (Park, 2013) but there is no doubt that these apps help learners be more engaged and motivated, and enjoy the language learning process better.

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CHAPTER 5: DISCUSSION AND CONCLUSION

This chapter discusses the findings of this study relevant to each research question that was examined in this study (see section 1.5).

5.1 Research Question 1

To what extent do iPad applications for learning English vocabulary and grammar in the language classroom affect the task engagement, motivation, and attitude of young Malaysian learners?

The results of this study showed that learners in the main group were more interested, engaged, and enthusiastic towards the tasks in the lessons as a result of using these apps. The learners' attitude towards the lessons in the main group compared to ones in the comparison group were analysed based on the feedback form which showed that the main group had overall more positive attitudes towards the lessons based on questions 1 and 3. This was supported in the following questions of the feedback forms where learners in the main group agreed on apps as the major reason for enjoying the lessons. According to the AMTB items, enjoyment is an important factor in the orientation and level of attitude (Gardner, 1985).

During the discussions, the more positive attitude of the learners in the main group was confirmed as they consistently mentioned the use of apps as a fun element and asked whether other teachers can utilise them in the classroom. However, most of the learners in the comparison group did not show any particular sign of interest in classes except for those who inquired after using apps and technology coming from their previous experience. The eagerness of the learners in the main group towards attending future classes because of these apps furthermore showed the positive effects of iPad apps on the attitude of the learners.

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Moreover, students in the main group showed interest in some features of these apps when using them for different tasks and activities. For example, the Quizlet and Bitsboard apps provided the learners in the main group with a wider range of games/activities to test themselves compared to the comparison group. Moreover, the ability to add photos from online resources and create more colourful flashcards was another interesting feature of these apps. Some of the students mentioned that these flashcards were more memorable because of the range of colours and photos. The Sock Puppets app had a similar feature as it provided a wider range of backgrounds and props for the role-plays along with the possibility of using different characters. Other apps such as BaiBoard and Word Mover did not provide the same range of activities; however, they allowed the participants to construct different sentences with more ease and be able to compare their works with other classmates on the spot. While using these two apps, students were also able to edit their sentences and correct their mistakes quicker which gave them more confidence with their work. From these findings, we could conclude that these features are important in engaging and motivating learners to participate and complete the tasks in the classroom. Moreover, when learners are given the opportunity to actively be involved in the task and have the chance to trial and error in their groups, they become more engaged and have a more positive attitude towards the activity. This could be as a result of making fewer mistakes and becoming more confident in their final work.

Furthermore, the learners' engagement was shown by participating in activities and getting involved in the tasks (see Lutz et al., 2006; Lee, 2012). Previous studies suggest that the use of apps in the classroom can add to the variety of activities and make lessons more enjoyable (Barber, 2012; Granito & Chernobilsky, 2012; Gilakjani et al., 2012; Gilakjani et al., 2013). The learners' positive opinions on these apps were expressed through the feedback forms where they mentioned that the variety of

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interesting activities during the lessons helped them enjoy these activities more and be eager to attend the class. According to the statements included in the AMTB, the eagerness to attend the class is another sign of a more positive attitude towards the course. The learners in the comparison group were mostly neutral towards the lesson and did not make any statements showing their eagerness to attend the course. When they were asked whether they felt more encouraged to attend the class, they mostly said *"not necessarily"* or that *"the class was okay"* or simply showed indifference by shrugging their shoulders. Therefore, the discussions with the researcher revealed that learners in the main group were more motivated and interested to attend the lessons and had a more positive attitude towards the course due to the use of apps.

The observations by the colleague supported this and showed that as a result of enjoyment and interest, the learners in the main group had more positive attitudes towards the activities in the lesson which was evident from their positive facial expressions (e.g. smiling when communicating with each other and using apps or raising eyebrows expressing amazement), body language (e.g. exaggerated hand gestures showing excitement), and encouraging comments (e.g. *This is amazing! So cool!*) made throughout the lessons. The use of apps was seen as an important factor for enjoying the lessons and higher motivation. This was evident from the findings of the feedback forms, observations, and discussions which consistently supported the theory behind the first research question. It is assumed that the element of fun is exciting for young learners and that could be why they chose this option in the feedback forms. However, the combination of all data supports this assumption.

As mentioned earlier, students in the main group strongly agreed that they enjoyed the lessons because the activities were interesting, while students in the comparison group did not consistently agree that the activities were interesting. The majority of

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learners in the main group exclaimed that they would be interested in a regular use of apps in the classroom as they would be more engaging and motivating.

However, it should be noted that some of these learners have been attending this language school for longer and might have had the experience of using iPads in the lessons with other teachers. This is probably one of the reasons that some of the learners in the comparison group were aware of using technology in the lessons and mentioned this in the discussions. Despite this, the learners considered the element of technology in different forms as an interesting factor which could create a more positive attitude, leading to learners' better performance, thus linking it to one of the '*Ten Commandments'* (see Dörnyei & Csizér, 1998).

Moreover, from the analysis of the audio/video recordings and the observation of the lessons, it was shown that these apps add to the level of enjoyment due to their specific features, which further confirms that they can increase engagement, motivation, and positive attitude which provides more answers to the first research question. This was observed not only by the teacher/researcher, but by her colleague as well.

On the other hand, according to the observations done by the researcher, learners in the main group tended to get distracted by the apps at times and not listen to their classmates or the teacher. This did not interrupt the flow and completion time of the activities as much; however, it could imply that apps can affect the focus and attention of the learners in a negative way.

It also shows that learners were having fun during the lesson, which was also mentioned by them on the feedback forms. The word *fun* could be intimidating to teachers when considering the element of classroom management. Previous research has shown that the *fun* factor can lead to distraction which is considered one of the

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drawbacks to using iPad apps, and more broadly technology since it prevent learners from maximizing their learning experience (Campbell, 2006; Kim, 2014).

Despite this belief, majority of the learners in the main group commented on how these apps made the lessons more interesting and helped them pay more attention. This was mentioned by the learners over 50 times in questions 7-9 in the feedback forms. It can be seen that learners do not only prefer apps only due to the element of fun and actually consider these apps to help their learning process. This shows that learners have considered apps to be engaging and useful in their learning and explore it from a more pedagogical view. These apps are providing the learners with higher motivation and more positive attitudes towards the lessons. Thus, this could imply that despite the possible distraction, the advantages of these apps outweigh the disadvantages.

Overall, in response to RQ1, it was found out that using apps in the classrooms can benefit the learners by increasing the level of their engagement and motivation, and further lead to an increase in their positive attitudes towards the lesson. It implies that these apps could be used as a factor in increasing motivation, particularly intrinsic motivation, and help create a more enjoyable environment.

5.2 Research Question 2

To what extent do iPad applications for learning English vocabulary and grammar in the language classroom enhance the performance of young Malaysian learners?

The importance of this research is not only about the effects of these apps on engagement and motivation of the learners, but rather on how the higher motivation and better attitudes lead to better performance. This is vital as achievement has always been an important factor on intrinsic motivation and the other way around (Gardner & Lambert, 1972; Dörnyei, 1994a/1998).

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The performance of the learners on the tasks was better in the main group, as observed by the researcher and supported by the observations of her colleague (see section 4.2). This included the fluency and accuracy of the learners in completing the tasks using the language input of the lesson. This was further proven by the results of the pre-test and the delayed/immediate post-tests, which were consistently higher in the main group (see sections 4.4 and 4.5). This shows that, as different studies have shown in different ways (Alemi et al., 2012; Amoia et al., 2012; Azabdaftari & Mozaheb, 2012; Chik, 2014a), these apps can increase the overall performance of the learners when used in the classroom.

These results confirmed the positive effects of apps on a more positive attitude and higher motivation which can lead to better performance of the learners. Using apps in the classroom can lead to an enjoyable and interesting experience for the learners and increase their engagement. This supports previous views on the pedagogical values of apps in an English language classroom, which leads to the third research question.

5.3 Research Question 3

What factors need to be considered when iPad applications are used in an English language classroom?

It should be considered that even though these apps add to the variety of activities in the classroom and help create more interesting lessons, they could also be time-consuming at times; both during the planning stage and in the classroom for the learners as well as the teacher. The study explored the success factors and obstacles of using iPad apps for teachers in an English classroom.

Overall, it was noticed that the teacher spent more time giving instructions and learners needed more time to explore the apps in the main group during the first session

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that an app was used (see section 4.2, lessons 1, 4, and 6). However, as learners learned more about different apps, the teacher was able to give instructions in both groups in about the same amount of time. Moreover, learners were able to spend less time navigating through an app and learning how to use it.

According to Ribeiro, Moreira, and Almeida (2009), the lack of proper training for teachers could possibly lower the pedagogical use of technology in the classroom due to unnecessary time spent on setting up activities and giving instructions. In this research, it was found out that the teacher generally spent more time planning activities such as the jigsaw reading using apps. During the first time doing the activity and using the QR Code app, it also took longer to help learners navigate through the app and learn how to use it. This was one of the most important obstacles for the teacher as she was planning the lessons. However, as observed from the audio/video recordings, the teacher spent less time from one lesson to another as learners got more familiar with these apps. This showed that despite the fact that planning and setting up activities could take longer at the beginning, once the teacher and learners became familiar with the apps and how to use them, this process became quicker and easier. Therefore, training teachers is not the only element. Training the learners on how to use technology could be an important factor as well. This implies that training both teachers and learners properly could increase the educational value of using apps in the classroom. Generally, it is important for teachers to be trained and become more digital savvy to be able to create a more engaging environment for the learners using these apps.

Another example in the classroom was specific to apps such as BaiBoard. Using this app gave the teacher the ability to observe the progress of the learners more easily as she had created a shared board and had access to all the pages on her computer as well. As a result, the teacher could monitor the progress of the task and give immediate

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feedback to learners. Immediate feedback has proven to be beneficial to the learning process and according to Phye and Andre (1989), the earlier corrective information is given to the learners, effective retention is more likely to happen. The app also gave the learners the opportunity to look at the work of other groups from their own iPad by flipping through different pages. Studies have also supported the value of peer feedback in an ESL classroom and how learners can benefit from it (Rollinson, 2005).

Furthermore, when using the Quizlet app, learners could create their own flashcard sets which allowed for a more independent and autonomous learning while the traditional method needed more manual effort from the teacher (see Chik, 2014a). Another benefit is that some of these apps, such as Quizlet and BitsBoard, are more reliable and useful in cases where a teacher may be physically unable to use her voice much.

On the other hand, it is also believed that "young learners are accustomed to the concept of 'learning has to be fun' and gamified mode of ELT" which means they would enjoy a similar environment in the classroom (Chik, 2014b, p. 259). Any form of digital tools can be engaging due to the gamification factor which maintains the learners' interest (Fullan & Donnelly, 2013). This implies that the fun and game factor is a key element in the future of language learning and materials development. As a result, teachers need to be aware of this and look for ways to manage their classes better possibly by stricter guidelines and better monitoring.

Overall, these apps can create specific obstacles and challenges for both learners and the teachers while used in the classroom. However, the findings in this study imply that these obstacles can be dealt with and the advantages will eventually outweigh these challenges.

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5.4 Theoretical Implications

The findings of this research confirm the importance of apps in a classroom of young learners as they create interest and engagement in the tasks which lead to more positive attitudes and higher level of motivation. As mentioned in the theoretical framework of this research, interest is an important factor in the course-specific motivational factors (Dörnyei & Csizér, 1998).

The positive effects of the apps on students' performance as a result of higher motivation and positive attitude in this study comply with Dörnyei's motivation theory (1998) which stated the importance of these two factors in language learning. This study shows that apps can affect different elements in the classroom (such as variety of tasks, ability to control the outcome, and the students' confidence level) and create task engagement affecting students' motivation and attitude positively which in turn improves their performance in the classroom. Therefore, the role of apps in a language classroom of young learners becomes invaluable.

5.5 Limitations

Time was a major limitation in this research. Each semester had only 10 sessions of 2 hours every weekend, either a Saturday or a Sunday, at the research venue and the same learners were in the class for only that one semester. Teaching did not commence in the first two weeks as it was used for introductions and studying the learners' needs. It was, therefore, possible to carry out only a few sessions of the iPad-aided teaching. The performance of the learners was analysed over one semester.

5.6 Recommendations

In light of growing popularity of tablets, particularly iPads and apps, this study focused on the use of these apps in a classroom of young language learners. Apps have

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been considered as effective tools in the classroom in different studies; however, there is a higher need to explore the benefits of them in the classroom and making them a permanent part of the syllabus. The apps used in this study (see section 3.5) are easy to use and adapt. They can also add a higher level of interest and engagement to the tasks and activities. They can further help learners improve their achievement by providing immediate and delayed feedback (Fullan & Donnelly, 2013).

Moreover, these apps can help teachers monitor and support their learners better. During this study, the researcher who was also the teacher in the study found that there was a need for more professional development and workshops in using apps in the classroom as many of her peers who became interested in the research, showed a lack of awareness towards the effectiveness and use of these apps in the classroom. This implies a need for training both learners and teachers to "focus not just on the use of the actual technology but on how it can support collaboration and effective interaction" (Fullan & Donnelly, 2013).

It is impossible to ignore how technology is becoming a part of our lives both in and out of the classroom. Hence, it has become more essential for teachers to think of the ways that these technologies, particularly education apps, can change teaching, learning, and professional expectations of learners and adapt to the ever changing world of education and technology.

Due to the limitations of time, it is also recommended for this study to be expanded over longer periods of time to provide learners with more support and training on using apps in the classroom to lead to even better performance in the long term. It could also be expanded and used for different ages and levels of proficiency.

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5.7 Summary of Chapter Five

This chapter discussed the conclusions based on the results of this research. The findings show that these apps can benefit the learners in many different ways. Many of these young learners, as mentioned earlier, are learning language not as a result of their own choice, even when they are aware of the benefits of learning the English language. Hence, it is important for the teachers to recognise the interests and needs of these learners and plan their lessons around them. In doing so, they can create a more enjoyable learning environment and help learners perform better (see Gardner, 1985).

In conclusion, apps can benefit a learner by providing a more interesting and engaging environment so it is worth taking more initiatives in equipping the language classrooms with the necessary gadgets and training the teachers to better use these apps in their classrooms.

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