USING MOBILE APPS TO FACILITATE ENGLISH LEARNING FOR COLLEGE STUDENTS IN CHINA

Bachelor`s thesis in Informatics (15 credits)

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Title: Using mobile apps to facilitate English learning for college students in China

Year: 2014

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Abstract

With the popularization of mobile technology and the explosion of apps, Chinese college students can use mobile apps to improve their English ability. While there is considerable enthusiasm for using apps to support learning with their multimedia capabilities, portability, connectivity, and flexibility, there is a paucity of research evidence about whether such approach can facilitate English learning for college students and what students' attitudes are towards the new approach. Besides, there is a lack of research about which apps are good and suitable for them in specific aspects of English studies, such as spoken English, reading comprehension, listening or writing.

In order to figure out them, the semi-interview survey and experiment are used in our study. The interviewees were 5 college students studying at USST or SDTU, China. They talked about their attitudes towards using apps to study on their own. In the experiment, the subjects were 15 exchange students, now studying at the University of Borås. The experiment examined the effect that college students use mobile devices to learn English by themselves.

The finding suggests that the new learning approach is effective and helpful for college students to improve English by using their mobile devices, as well as undergraduates are willing to use apps to learn English with self-regulated learning approach instead of traditional learning approach. Some apps well suited for college students are presented. Based on the findings, we provide useful instructional strategies for college students to learn English by themselves in the end.

Keywords: College students, Mobile App, English learning, self-regulated learning.

Acknowledgements

Contents

Figures and Tables

Chapter 1: Introduction

This chapter introduces the readers to the background of the popularization of mobile devices among college students and using apps to learn English in China. It also contains a general description of the importance of learning English for undergraduate and the current situation of their English ability. Subsequently, the problem description, purpose, research question and sub questions will be presented.

1.1 Background

We live in a world that the mobile technology develops at so fast speed that we have difficulty following. In only a few years the mobile market has changed drastically with the advent of smartphones with android system and Apple products with iOS system such as iPad and iPhone, and the number of people that own these kinds of devices is growing at a fast rate especially among young people. The situation is same in China. According to a report from China Information Center (2014), mobile devices ownership among Chinese college students has increased up to 96.3% in December 2014. Also, the report showed that there was a trend that college students spend more and more time on mobile devices.

With the mobile devices, a new market of application software called Mobile App has appeared and is growing at an incredible speed. Apps are easily available online, and there are two App stores: iTunes App store and Android Market. ITunes App store offers over 700.000 apps available to consumers, while there are over 675.000 apps on Android Market (Andersen, 2013). Among this incredible number of apps, there are a large number of apps relating to English learning for Chinese students. These English learning apps can be easily and freely downloaded by students according to their own interests. Besides, these apps are developed in terms of learners' different purposes. Also, using apps on mobile devices to learn English also breaks the restriction of time and place (Subian, 2014). It means that students can learn English at any time and in any place. Mobile devices are becoming a kind of important tools for students to learn English.

On the other hand, English, as the most prominent language in the world, is playing an important role in China. For the current college students, it is a necessity to have a good ability of English, because of academic and job factors. For example, there are many majors need English to support such as international trade, e-commerce and information technology, and a majority of multinational companies in China are interested in the graduates who have excellent ability of English. Chinese government has been enhancing English education. Before Chinese college students go into universities, they must accept at twelve years English education (six years in primary school, three years in junior middle school and another three years in high school) and pass a series of test that English exams are included. English shares the equally most important role with Math and Chinese for Chinese students.

Ironically, after accepting so many years English education, only few college students can use English properly in daily life. According to the report from McKinsey & Company (Farrell & Grant, 2005), Chinese undergraduates' English level is low, and just 10% of graduates have the ability of English to work at foreign companies, which wound Chinese college students deeply. For current college students, except these students who major in English, there are just a few English courses. Freshmen and sophomores only have four

periods a week which is equal to three hours spent on learning English each week, while for junior and senior students, there is not any more English lesson (Jin, 2011). It is obvious that the current English education is not efficient for college students to have a good command of English.

With the accelerated development of Apps about learning English and the popularization of mobile devices among college students, students have become increasingly interested in the learning benefits that apps on mobile devices bring. According to the relevant researches, the Mobile-Assisted Language Learning (MALL) can not only enhance students' English ability, but also increase students' learning motivation. Seemingly, it is helpful and efficient for college students using mobile devices to learn English by themselves.

1.2 Problems

The reality is that we don't know whether it is efficient and effective for college students to use mobile apps to learn English by themselves. MALL is a new way for Chinese college students to learn English. Thus, students' attitudes towards it are not clear. On the other hand, with the explosion of apps, college students are supplied with more choices. But every coin has two sides. Although there are a lot of apps referring to learning English and college students are easier to get these materials and resources, the reality is that the App market is like a jungle. There is too much software for college students to choice and use. Obviously, there is a lack of recommendation about relevant apps and suggestions about how effectively to use them to learn English. Thus, empirical research about these problems is much needed.

1.3 Purpose

The purpose of this thesis is to investigate the effect that college students use mobile devices to study English on their own. And, the thesis is designed to explore the potential benefits of apps as a learning tool.

1.4 Research question

Do the mobile apps enhance significant progress in college student's English ability?

1.5 Sub questions

1. What are college student's attitudes towards using mobile apps to learn English by themselves?

2. Which app is effective and efficient for college students to practice their speaking, listening and reading skill respectively?

1.6 Disposition

The rest of the thesis is organized as follows: The Chapter two reviews relevant literatures; Chapter three introduces the research method; Chapter four describes the result of the interview and the outcome of the experiment, and Chapter five concludes the thesis and presents the limitations and future research opportunities.

In chapter two, we will review the theories about mobile apps, MALL. Special emphasis is placed on English-learning apps and the criteria for them. Then, the concept about pedagogy will be presented. At the end, the research model and related hypotheses will be proposed.

In chapter three, the mix of qualitative and quantitative method conducted in the study will be described. The research objective and design will be addressed first. Then the interview and experiment as our research methods will be explicitly illustrated.

In chapter four, first, the interview findings will be presented and analyzed. Next, the interview results will be listed and analyzed.

In chapter five, we will conclude the research firstly. Besides, according to both of the results, we will give college students a suggestion about how effectively to improve English ability by themselves. Finally, the limitations and future work will be listed.

Chapter 2: Literature review

This chapter is divided into five parts: 1) Mobile apps. 2) MALL. 3) English-learning apps. 4) Pedagogical overview. 5) Research model and hypotheses. In the first part, the definition of mobile app and the situation of using mobile apps among college students will be presented. In the second part, MALL will be introduced. In the third part, related information and criteria for English-learning apps will be discussed. In the fourth part, teacher-centered, student-centered and self-regulated leaning approach will be explained. Also how MALL promotes students' self-regulated learning will be discussed. In the final part, the research model and related hypotheses will be proposed.

2.1 Mobile apps

A mobile app, as a computer program, is designed to run on mobile phones, tablet computers (like iPad) and other mobile devices. The word "app" is a shortening of the term "application software". Apps are easily available through application distribution platform called App Market, and these apps are typically operated by the owner of the mobile operating system, such as the Apple App Store, Google Play, Windows Phone Store, and BlackBerry App World. There are two main app stores: Google Play for Android and Apple App Store for iOS. Google Play, known as Android Market, is an international online software store developed by Google for Android devices (Chu, 2009). Apple App Store for iOS is the first app market, which set the standard for app distribution services (Rao, 2011).

In China, most of apps can be downloaded by users freely, while some must be purchased. Mobile apps can be downloaded from App Market to a mobile device, such as an iPad or mobile phone, or they can be downloaded to computers. At the beginning, mobile apps were developed for general productivity and information retrieval, such as weather forecast, e-mail, calendar, alarm clock, and so on. However, public demand and the availability of developer tools drove rapid expansion into other categories, such as education, entertainment and tools. The popularity of mobile apps keeps continuously rising, as their usage is becoming increasingly prevalent across mobile phone and tablet computer users (Sean, 2012). According to a report from comScore (2012), more and more users used apps than browsed the web on their mobile devices.

2.1.1 The situation of usage among college students in China

Mobile apps have become very popular among college students. Almost all of them download apps on their mobile devices. A report from Xinhua News (2010) was about the investigation of mobile app culture among college students in China. It showed that over 50 percentage of college students spent over three hours on various apps by using their mobile devices every day.

The report also reflected that the main purposes of college students using mobile apps was entertainment (28.1%), communication (22.1%) and learning (26.2%). The data indicated that students preferred to use apps to learn. At the same time, Xinhua News published data on the way of college students using apps to learn (see figure 1). From this figure, the main purpose is to download apps about learning materials (37%). It is obvious that college students like to take advantage of mobile apps for learning.
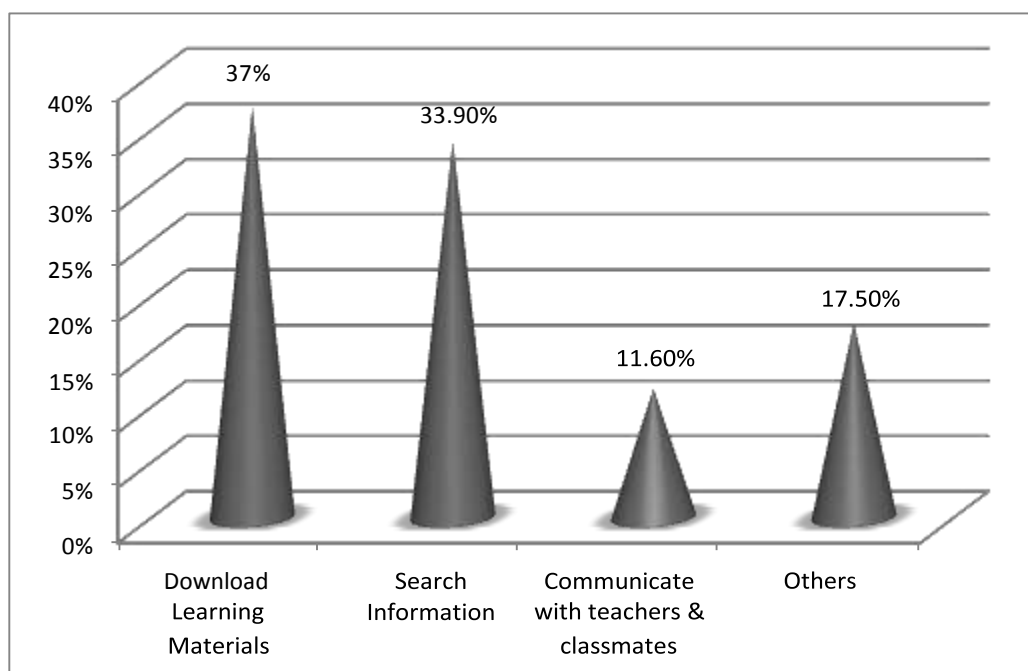
Figure 1: the way of college students using mobile apps to learn

2.2 MALL

Mobile-Assisted Language Learning (MALL) focuses on the use of mobile technology in language learning. In MALL environment, there is no need for learners to sit in a classroom or in the front of a computer to study. Actually, MALL can be viewed as an ideal solution to language learning barriers in terms of time and place (Miangah & Nezarat, 2012). This technology gives a combination of flexibility, accessibility, and interactivity with mobile apps unlike other typical classroom technologies (Liu, Tan, & Chu, 2009). This combination can facilitate language learning through the access of authentic, contextualized resources, for instance, it provides students the opportunity to connect to anteriority learned knowledge, acquire new knowledge and further develop problem-solving skills (Liu, Tan, & Chu, 2009, Liu, Navarrete & Wivagg, 2014).

More specifically, MALL brings noteworthy benefits to students; they can use different types of apps on mobile devices to watch online tutorial, read material, and listen English records, they can stop or fast forward through materials as their desired, giving them the independent control based on the pace they receiving information, it permits students to decide their own learning processes (Banister, 2010). According to Kukulska & Shield (2007), MALL can encourage collaboration and co-construction of knowledge. Students had to find information and share it with their peers so that they can build up an overall understanding of a realistic problem. Education departments all over the world have realized the advantages of this new technology, McCarty (2005) and Belanger (2005) found that both Japanese and USA schools encourage their students' participations by providing iPods to them.

There are many researches seem to prove that MALL is a help tool to leaners. As Liu, Maradiegue & Navarrete (2014) concluded: "The wide-ranging, various resources and capabilities to sustain English language education made available by mobile devices". Also

Kukulska & Shield (2007) focused on the impact on the listening and speaking, and they discovered: "MALL is expanding at the speed of two or three years from a teacher-learner, text-based education environment to one that is beginning to support multimedia, collaborative listening and speaking activities and to allow students to co-construct knowledge to figure out problems and fill information gaps". Chinnery (2006) comprehensively reported mobile devices have effective influences for language learning.

Furthermore, some researches pay attention to the pedagogical methods that brought by using apps in mobile devices. These mobile devices have an auxo-action for collaborative approach and self-regulated approach. For example, exchanging the academic ideas on Internet forum or discussing a project with partners on mobile phones might be encouraging collaboration.

2.3 English-learning apps

2.3.1 Apps as online English-learning resources

Resources play an important role in language education. In language education, materials are essential part of the learning and teaching processes (Ahmet Başal, 2011), while in traditional classroom settings, materials are mainly text-based and static (Cruz, Boughzala & Assar, 2012). Online resources or web materials are important resources for distance learners to achieve effective learning (Mutiara, Zuhairi & Kurniati, 2007). According to Ngeow and Soo (1998), the materials are one of the most important and essential components of instruction. Online resources are the dominant part of any computer assisted language teaching course (Blake & Delforge, 2004).

Learning that is supported by large plenty of English-learning apps is a new way for college students in China. Online resources bring an easy way to knowledge that is useful and relevant (Nichols, 2003). Using online resources is being regarded as having the function to improve the quality of learning, increase the chance of accessing to education and training, reduce the expenditure consumed on education and facilitate the effectiveness and efficiency of education (Alexander, 2001).

However, it will make no difference, if just text-based materials such as PDF or Word documents are used in online English resources. Multimedia elements are added into English learning resources, which can be regarded as a necessary part.

The rapid development of app technologies has made these English learning apps have capability to integrate different media, for example, text, picture, animation, audio and video can be integrated in order to create a multimedia instructional material, as well as prompt students' interest in studying. By using communication apps such as QQ, WeChat and Skype to talk with others in English, college students are encouraged to willingly speak up and engage in discussions (Shih, 2011). During the progress of talking with others in English through certain chat app, college students constantly overcome their linguistic restriction, and happily express their ideas and thoughts.

The findings of recent studies also illustrate that learning apps have a positive effect on English learning. For example, college students in China are qualified and enthusiastic users of mobile devices, so they can rely on internet-based or assisted language learning to

conduct independent language learning and academic writing (Conroy, 2010). Email, online chat, and online discussion are these elements that are included in internet-based instruction and that can facilitate instructor to learner and learner to learner interactions (Shih, 2011). In addition, online interactions can enhance learner-to-content interactions and learning effects. These interactions include multimedia presentations, learners' contributions to learning materials and links to related learning materials (Lou, Wu, Shih and Tseng, 2010; Lou, Guyo, Zhu, Shih & Dzan, 2011).

Besides, some of apps provide students with a service of collective studying with others, which creates team-based learning activities across regions and even countries. There are many studies have illustrated that project based learning or team-based learning activities can promote active learning (Liang & Tsai, 2010; Neo, Neo & Kwok, 2009).

The emergence of apps about education has changed the traditional learning mode, gradually changing from the teacher-centered to self-regulated, learner changed into knowledge construction of the active learning (Yiping & Lei, 2010). The technology-enriched learning is designed to enhance students' self-regulation and motivation (Kramarski & Gutman, 2006). According to López-Morteo & López (2007), it helps students improve their academic performance and increase positive attitudes towards learning. More and more studies show that using mobile apps can engage students in self-regulated cycles of learning (Kitsantas & Dabbagh, 2010). In higher education, app as a kind of online learning resources has the ability to support college students' self-regulation. For example, universities in China are becoming more towards flexible modes of delivering courses, while students have to battle with these new modes of delivery (Northover, & Donald, 2001). As a result, students must be responsible for their learning. They will turn to use online resources to conduct self-regulated learning. It indicates that using mobile apps to learn can promote students to adopt self- regulated learning approach.

Apps available for use in language learning and teaching has become very diverse and become central to language practice (Motteram, 2013). For these learners, especially for the current college students who live in the low English-learning environment in China, they can utilize the large amount of rich, diverse and convenient online resources to study by self-regulated learning approach. Students have been exposed in the world of tremendous amount of information, which makes students learn efficiently and achieves remarkable performance. Self-regulated learning with the support of online resources, students can easily search information and determine when and where to learn (Allyson & Winne, 2 0 0 1 ; Dabbagh & Kitsantas, 2004).

To sum up, learning English refers to listening, speaking, reading and writing, while there are many apps that create a multimedia instructional material, which is very helpful to create a n English atmosphere for Chinese students who not only learn English from text but also suck in English thought from audio and video (Ahmet, 2011). To sum up, using mobile apps have a positive effect on English learning (Conroy, 2010). It can also promote students' self- regulated learning.

2.3.2 Top 10 popular English-learning apps in China

Baidu is the most popular and largest Chinese search engine (Vaughan & Zhang, 2007).

According to top apps ranking on Baidu, these are the 10 most popular apps relating English learning in China, by their active usage in 2014 (see table 1). This list counts usage among the two application stores (Apple App Store and Android Market).

Table 1: Top 10 popular English-learning apps

Icon	Name	Attribution	System
	Speaking English fluently	Speaking	Android OS & iOS
	Crazy English	Speaking	Android OS & iOS
	New Concept English	Listening	Android OS & iOS
	Learn ABC	Listening	Android OS & iOS
	Baicizhan	Words learning	Android OS & iOS
	Tuoci	Words learning	Android OS & iOS
	Kingsoft power word	Translating	Android OS & iOS
	Youdao	Translation	Android OS & iOS
	China Daily	Reading	Android OS & iOS
	Hujiang English	Reading	Android OS & iOS

2.3.3 Criteria for English-learning apps

The easy availability of apps on mobile devices means that students are increasingly turning to online resources for learning. When encouraging college students on how to best use mobile apps for their English learning, it's important to emphasize critical thinking, and being able to evaluate different sources (Rob James, 2013). At the same time, it's also worth considering the benefits of apps that can help students to organize and compare different sources as part of projects and revision. Unlike similar information found in books, newspapers or television broadcasts, information available on mobile apps is not regulated for quality or accuracy. Internet has its problems. When using information online as an English learning resource, there are some criteria about the online English learning resources that need to be mentioned.

Practical criteria for English resources were designed by Tomlinson (2010). Some of them are as follows:

1. English materials should contain enough spoken and written text.
2. Language input in materials should be contextualized.
3. Learners should be exposed sufficient samples of language in authentic use.
4. English materials should include activities that provide critical thinking and encourage learners to visualize.
5. English materials should include interesting and engaging tasks.

According to Howard and Major (2004), a series of specific guidelines was listed for online English resources.

1. Online English resources should be stimulate interaction and be generative.
2. Learners are encouraged to develop learning skills and strategies when they use online English resources.
3. Online English resources should link to each other to develop a progression of skills, understandings and language item.
4. Online English resources have appropriate instructions.
5. Online English resources should be attractive and flexible.

Furthermore, updatability of apps is one of the most important criteria. In terms of updatability, if students think there is a need for a change in the material depending on the needs and level of what they have learned, they can easily adapt the material (Ahmet, 2013). When self-regulated college students use their smartphones or iPads to learn English, updatability becomes more important, because English resources keep continuously updating every day. It means that high updatability can save their time, money and energy in the progress of learning English.

2.4 Pedagogical overview

Pedagogy is the science and art of education; it is the study and practice of how best to teach. It includes teaching methods related to the presentation of experiences, engagement of learners, reinforcement, motivation, organization of teaching tasks, feedback, and evaluation (Suzan, 2008). Also, there are diverse theories and approaches to instructions, such as teacher-centered approach, student-centered approach and self-regulated learning which belong to pedagogical approaches. The development of mobile technology and abundance of online learning resources are changing the pedagogical approaches and enhancing students' learning outcomes (Govindaswamy, 2002).

2.4.1 Teacher-centered approach

The teacher-centered approach is a kind of pedagogical approach that methods, activities, and techniques where the teacher decides what is to be learned, what is to be tested, and how the class is to be run (Armstrong, 2012). This traditional transmissive view reflects the teacher-centered approach where the agency lies with the instructor (Diaz et al., 2000). Often the teacher is in the center of the classroom giving instruction with little input from students. The teacher decides the goals of the class based on some outside criteria. In other words, teachers ask students what they should do and how they should do it by

constructing the learning environment.

An article, posted on Concordia online (2012), said that students put all of their focus on the teacher in teacher-centered education. The teacher speaks, while the students exclusively listening. During activities, students work alone, and collaboration is discouraged. Also, this article lists some weakness of teacher-centered approach, as follows.
1. When students work alone, they don't learn to collaborate with other students, and communication skills may suffer.
2. Teacher-centered instruction can get boring for students. Their minds may wander, and they may miss important facts.

2.4.2 Student-centered learning

Student-centered Learning represents both a mindset and a culture within a given educational institution and is a learning approach which is broadly related to, and supported by, constructivist theories of learning (Attard, Iorio, Geven & Santa, 2014). During this progress, students are regarded as creating new knowledge for themselves extracting information that they think is suitable for them, and matching it with existing knowledge (Suzan, 2008). Students choose what they will learn, how they will learn, and decide for themselves how they will assess their own learning. There is no doubt that the learner-centered approach requires students to be more active and responsible for their own learning with their own pace of learning. The knowledge that students have learned is regarded as more subjective, dynamic and expanding (Olgren, 1998).

When a classroom operates with student-centered instruction, students and instructors share the focus. Instead of listening to the teacher exclusively, students and teachers interact equally. According to Concordia Online (2012), group work is encouraged, and students learn to collaborate and communicate with one another. There are some advantages as followed:
1. Students learn important communicative and collaborative skills through group work.
2. Students learn to direct their own learning, ask questions and complete tasks independently.
3. Students are more interested in learning activities when they can interact with one another and participate actively.

Some studies show the student-centered learning environment to be effective in higher education. A recent experiment was made to evaluate the effect of student-centered approach by surveying the students. After two years the mean ratings indicating the students' perception of the quality of the teaching and learning environment at the university all rose significantly (Kember, 2009). This study indicates that college students will have a positive learning experience by taking a student-centered approach, which will facilitate them to develop greater passion for learning and lead to higher achievements in education.

2.4.3 Self-regulated learning

Self-regulated learning is called SPL. It is learning that is guided by metacognition

(thinking about one's thinking), strategic action (planning, monitoring, and evaluating personal progress against a standard), and motivation to learn (Butler & Winne, 1995; Winne & Perry, 2000; Perry, Phillips, & Hutchinson, 2006; Zimmerman, 1989; Boekaerts & Corno, 2005). In other words, learners learn something by taking control of and evaluating their own learning and behavior (Ormrod, 2000). Autonomy and control are emphasized during the progress of self-regulated learning (Paris & Paris, 2001). It emphasizes students' reliance on their own internal resources to govern their learning (Zimmerman 1989).

About self-regulation, there are four phases. A self-regulatory learning cycle is proposed (Zimmerman et al, 1996), as shown in figure 3. The four interrelated phases are included in the cycle which helps students evaluate their performance. According to Zimmerman (1996), during these processes, students carry out their plans, manage their own learning and voluntarily fulfill it at the same time.

Figure 2: A cyclic model of self-regulatory learning

With the rapid development of internet technologies, students have been exposed in the world of tremendous amount of information, which makes students learn efficiently and achieve remarkable performance. Self-regulated learning with the support of online resources, students can easily search information and determine when and where to learn (Allyson & Winne, 2001; Dabbagh & Kitsantas, 2004).

2.4.4 Self-regulated learning is suitable for undergraduates to learn English in China

Higher education emphasizes students to study what draws their interests and bury themselves in their studies, rather than students put all of their focus on the teacher (Wang Xinhua, 2002). It is obvious that teacher-centered approach is not enough suitable for Chinese undergraduates. Professors and teachers, as instructors, just provide students with academic advices and theoretical knowledge. Especially in learning English, students need to spend more time in communicating with others in English, and read more English books in order to keep themselves in English environment. Teacher-centered approach eliminates many students' opportunities to collaborate and communicate with other students. Also, this approach may lead to students losing interest on English.

In comparison with teacher-centered approach, student-centered one is more effective. Undergraduates can work in teams to create new knowledge together learn what are suitable for them. The student-centered learning practices in the class room environment do not provide any more flexibility in terms of time and locations for students (Nunan, 1994). In consideration of students' current situation, there are a few English

classes for freshmen and sophomores and no any class for junior and senior students. Students don't have enough time and opportunities to study together in groups, but students need a large amount of time to be exposed to English environment when learning English (Fraser & Pia, 2011). Obviously, student-centered approach is not enough for college students to improve their English.

Self-regulated learning approach accords with the purpose of higher education (Weihua, 2011). College students have plenty of free time to learn English by themselves. By adopting this approach, undergraduates can control their studying plan and learn English materials that they like. Furthermore, the development of internet technology breaks the limitation of information resources scarcity. Students can get English resources that they need easily. Mobile technology devices with internet, such as mobile phone and iPad, make students rely on their own internal resources to govern their learning without the restriction of time and place (Subian, 2014). When it comes to student-learning approach, the biggest strength is that students work in teams to create new knowledge together and learn what are suitable for them. Whereas, the lack of English course for Chinese students to stay together blocks them to learn English together. Relatively, communication app builds a visual world where students can conduct collective studying with others across regions and even countries. In comparison with teacher-centered or student-centered learning approach, SPL approach is the most suitable for Chinese college students to learn English (Qing, 2005).

2.4.5 MALL promotes students' self-regulated learning

MALL can be used to motivate and engage English language learners to develop their literacy and language skills by themselves (Traore & Kyei-Blankson, 2011). Softa (2011) expressed his opinion "the importance for use of MALL as a motivational piece to encourage language learning." Sofa (2011) conducted a questionnaire given to 230 students about student motivation from the learning environment and the use of mobile technology. The result reflected a positive attitude while performing in a technologically advanced environment, being more willing to conduct self-regulated learning. According to Megan (2013), technology can provide students with a sense of self-control and responsibility. During using apps to learn, the students are more likely try to complete the study task independently. It is important to embed learning supports within the MALL that the learner is in control of (Proctor, Dalton & Grisham, 2007). Mobile apps, a new technology, have greatly impacted students' learning, and the technology is integrated effectively and appropriately that these learning practices will enforce students' learning motivation and autonomy (Soong, 2012). Mobile devices supports students in gaining autonomy and independence to expand the academic day beyond the time, place, and pace in which learning can occur (Beecher & Williams, 2012). The expansion of time, place, and pace allows students for the continual exposure and practice of literacy skills (Gedera, 2011). MALL has the ability to make students conduct self-access English learning. Also, MALL has a desirable feature of flexibility that has the potential of increasing learner autonomy and proficiency.

Mobile apps afford student learning English through a multitude of mediums and give English learner opportunities to "interact with, negotiate, interpret and make meaning of texts available, whether these are orthographic, audio, audiovisual or visual texts" (Murray, 2008). It has been found that MALL has a benefit for English language learners as mobile

apps tailor instruction and individualize learning so as to meet the students' needs and rate of learning (Megan, 2013). Mobile apps can help English learners develop speaking, writing, listening and reading skills (Hann & Johnson, 2012). According to a research conducted by Wang (2012), it was determined that e-dictionary apps can expand participants' vocabularies which improve their skill of reading and writing. Also, Johnson (2012) found that the affordances supplied by MALL can improve the effect and efficacy for English learners in their ability to acquire speaking, listening and English thinking skills.

2.5 Research model and hypothesis

According to this chapter, we can know:

1. Using online learning resources (apps relating to language learning) has a positive effect on language learning (Conroy, 2010).
2. MALL can engage and promotes students in self-regulated cycles of learning (Kitsantas & Dabbagh, 2010).
3. Self-regulated learning approach is suitable way for Chinese college students to learn English (Qing, 2005).

These points are used as our basic theory to study our research question: do the mobile apps enhance significant progress in college students' English ability? And then, we will study what college students' attitudes are towards using mobile apps to learn English by themselves. Besides, it will be further studied which app is more efficient for college students to practice their speaking (Q2), reading (Q3), and listening skill (Q4). The proposed research model for this study is presented in figure 3.
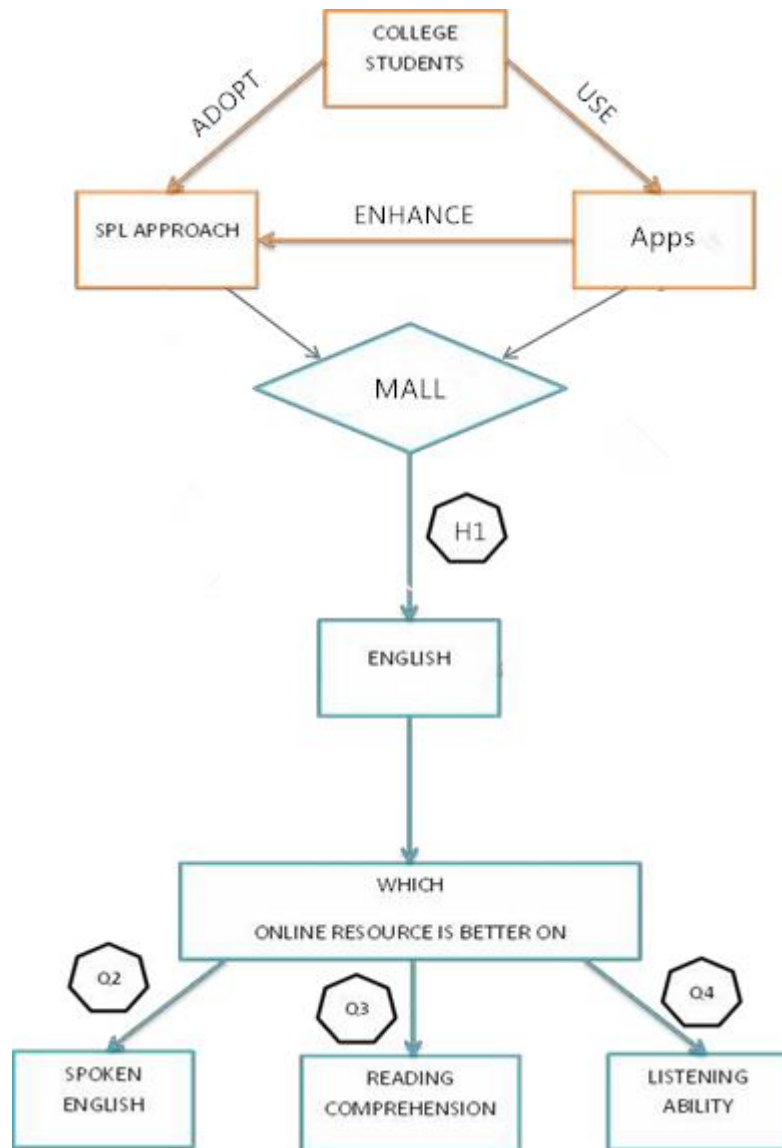
Figure 3: Proposed research model

Based on the proposed research model, this study has developed the following hypothesis:

H1: College student' improvement in English ability has significant relationship with the apps.

Chapter 3: Method

This chapter mainly discusses the method adopted in the research. The research objective will be addressed first. Then research design will be explained. The semi-interview and experiment as our research methods will be presented. Finally, the credibility of the research findings will be discussed.

3.1 Research objective

Research objective provides researchers with a clue to how research is designed and what aim of the research has, as well as give a guideline in order to execute an effective and successful study (Kent, 2007). A research purpose can be classified into three types: exploratory, descriptive and explanatory (Saunders, Lewis & Thornhill, 2009). Exploratory studies are used so as to seek fresh insights; to ask questions and to assess phenomena in a new light (Robson, 2002). Thus, new ideas and theories are generated by it. The aim of a descriptive study is to measure the "sizes, quantities, or frequencies" (Hedrick, Bickman & Rog, 1993). Explanatory studies are based on exploratory researches; endeavor to investigate the factors why something occurs and display relationships between variables (Neuman, 2003). For explanatory study, it is useful to apply quantitative strategy and statistical tests (Saunders et al., 2009; Kent, 2007).

The purpose of our thesis is to find out whether college students can make progress in English study by using mobile apps with self-regulated learning approach, and to investigate undergraduates' attitudes towards it. Then, we will study further which apps are more helpful and efficient for college students to practice in their speaking, listening and reading, respectively. This is the characteristic of an explanatory study.

3.2 Research design

In order to answer our research questions, we adopt a mix of qualitative and quantitative research strategy to investigate the effect and students' attitudes when they use apps that are installed on their mobile devices to learn English by themselves; to evaluate which apps are helpful and efficient to learn English in specific aspects: speaking, listening and reading ability. In order to deal with these them, our research incorporates two methods: a semi-structured interview and an experiment. Qualitative data will be collected by the semi- structured interview, while quantitative data will be collected by an experiment.

3.2.1 Qualitative research

The goal of qualitative research is to gain holistic, comprehensive and affluent data (Walker et al. 2008). On the other hand, Qualitative research is to understand a phenomenon, and generate words, rather than numbers, as data for analysis (Patton & Cochran, 2002). A semi-structured is a qualitative method of research used in the social sciences (Bryman & Bell, 2011). According to Bernard (1998), the semi-structured interview provides reliable and comparable qualitative data; and allows informants the freedom to

express their views in their own terms.

In our study, semi-structured interview method is used to investigate college students' attitudes towards using mobile apps to learn English; to investigate what English-learning apps they are willing to use; and to collect interviewees' suggestions about using online English learning resources to learn English among college students.

3.2.2 Quantitative research

According to Bryman & Bell (2007), a true experiment is usually used as a yardstick against which non-experimental research is assessed. Also, it is frequently held up as a touchstone because it engenders considerable confidence in the robustness and trustworthiness of causal findings.

In our research, an experiment is conducted. The experiment is based on the results of interviews. Eight English-learning apps as the experimental tools are selected, according to the interviewees' recommendations and the top 10 popular English-learning apps in China. Also, we will take into account the interviewees' suggestions about how to use mobile devices to learn English, when we lay down experimental operating instructions for the participants. Pre- and post-tests are included in the experiment. The participants' pre- and post- test scores as experimental data is used to study the research question (Q2, Q3 and Q4) and to test our hypothesis (H1).

The research design is presented in figure 4.

TIME

Interview

Attitude

Recommendation about apps

Suggestion (how to use mobile devices to learn English)

APPs & SPL approach
To learn English

Sub question 1

Used as experimental tools

Operating instructions

Pre-test

Experiment

Post-test

Data

H1

Q2

Q3

Q4

Research question

Sub question 2
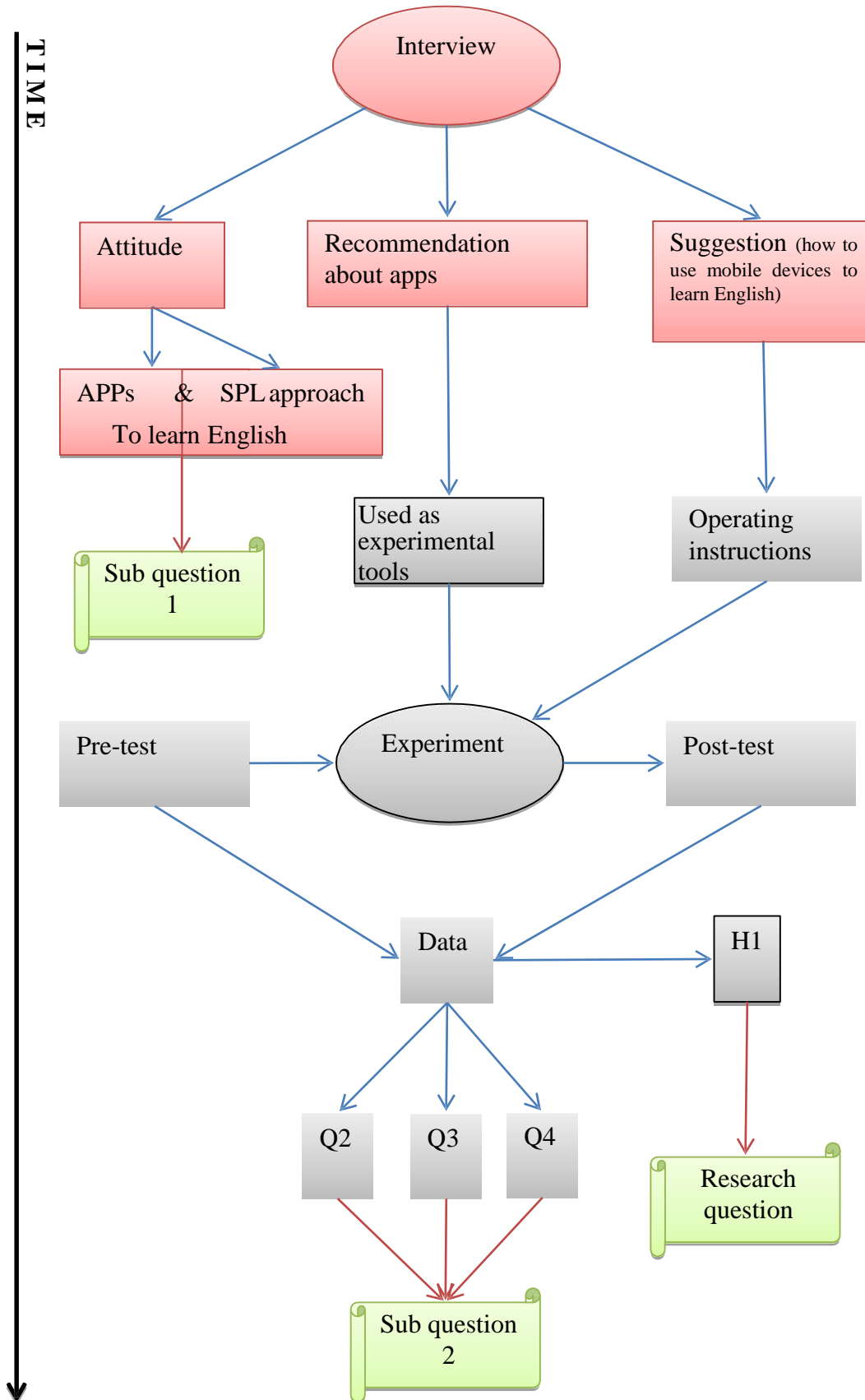
Figure 4: Research design

[23]

3.3 Data collection

Data sources are mainly classified into primary and secondary data (Gulnazahumad, 2013). Primary data is that data is collected specifically for the research project being undertaken (Saunders et al., 2007). In other words, primary data is always unknown before research being undertaken and obtained directly for a specific research project (Currie 2005). Secondary data is collected through qualitative methodology or qualitative research, and they have already been published in any form such as journals, books and magazines (Gulnazahumad, 2013). Secondary data is collected by someone other than the user. Primary data, by contrast, are collected by the investigator conducting the research (McCaston, 1998).

In this study, the primary data, gathered from through the interviews and experiment by the authors, will be processed and analyzed in order to investigate the research question and sub questions as well as to test the hypothesis.

3.4 Interview

An interview survey is used to analyze three aspects. The first one is about undergraduates' attitudes towards using mobile apps to learn English by themselves. The second aspect is about which apps are always used by the respondents to improve their English in a specific aspects such as reading comprehension, listening, writing or spoken English. The apps that are recommended by the interviewees will be used as the consideration when we select the experimental tools in the experiment. The last aspect refers to interviewees' suggestions about using online English learning resources for college students.

3.4.1 Interview participants

There are totally five interviewees who volunteered to participate in the interviews. The five interviewees are studying in the Shanghai Science and Technology University (USST) or the Shandong Jiaotong University, China. Three of them are junior students, and another two interviewees are senior students. They have all finished four or five English courses when they were university freshmen and sophomores. And, the teacher-center learning approach is applied in all English courses in USST and SDJTU. It indicates that the interviewees have the experience of learning English by teacher-center approach. Additionally, the five students attending the survey have their own iPads, mobile phones as well as had internet access. The profiles of the participants are presented in Appendix A.

3.4.2 Interview instrument

We interviewed the five college students in China by Skype, Wechat or QQ that were online chat software. All of the interview contents have been recorded, under the interviewees' permissions. Every respondent was asked about the similar questions, and every interview lasted around 30 minutes. Then, we transcribed these interview contents. The final interview contents are presented in Appendix B.

3.4.3 Interview questions

According to (Laforest, 2009), many researchers like to use semi-structured interviews because questions can be prepared ahead of time. In our research, the interview questions allow the interview purpose, and are separated into two aspects:
1. Fix questions: 12 questions are designed in advance;
2. Improvisational questions: some questions are asked by the interviewers according the conversations.

The interview fixed questions are designed to target the purpose of interview. In addition, there is an inherent relationship among them (figure 5). They are as follows:
1. About English learning, which part do you think that it is difficult to learn, speaking, listing, reading or writing? (Multiple-choice)
2. How much time do you spend learning English every day? And how do you learn English? What is your learning approach?
3. For yourself, which one approach do you think is more effective, the self-regulated one or the teacher-center one?
4. Do you consider that the self-regulated learning approach is important and the most suitable approach for Chinese undergraduates?
5. What are the advantages and disadvantages of the self-regulated learning approach?
6. Do you use mobile apps to improve your English? What do you think these online resources?
7. What are the advantages and disadvantages of using apps to learn English?
8. How much time do you spend in using your mobile devices to learn English every day?
9. Which one app do you always use and like?
10. There are a lot of English-learning apps, such as Hujiang, Learn ABC, Special VOA and so on. Can you recommend some apps?
11. Can you give us some suggestions about using online English learning resources?

Question 1 and 2 is to collect the interviewees' information in English study. Question 3-8 are related to interviewees' attitudes towards using mobile apps to study on their own. Question 9 and 10 are designed to know interviewees' opinions about which one online English learning resource is better, or which one they always use. Question 11 is the suggestions in term of using mobile devices to study for college students.
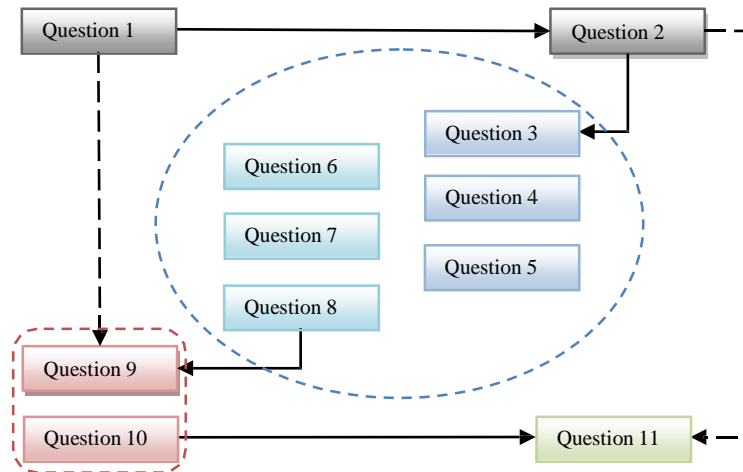
Figure 5: The inherent relationship among interview questions

3.4.4 Qualitative data analysis

Through semi-structured interview, college students' perspectives, recommendations and suggestions will be identified. Regarding the interview analysis, it is in a form of qualitative data analysis (Bryman & Bell, 2011). The qualitative data analysis is an inductive process, in which some elements of a deductive approach need to be combined in order to develop a theoretical position. After that, its applicability will be tested through subsequent data collection and analysis (Yin, 2003).

Therefore, we will conduct our qualitative analysis through five steps which is proposed by Mills (2006):
1. Transcribing the interviews. The interview contents are presented in Appendix B.
2. Exploratory analysis. We reviewed the transcript of interview contents several times to identify what the interviewees' replies belonged to which an aspect among the students' perspectives, recommendations and suggestions.
3. Referring to research questions. The interview was used to study three aspects, so we further reviewed the transcript and identified themes that could answer our research sub question.
4. Inter-rater reliability. We reviewed the interview data and refined that the interview data was related to which aspects individually.
5. Interpret findings. We sorted and integrated different aspects into multiple categories, and then named those categories (like interviewees' perspectives on self-regulated learning approach; and interviewees' attitudes toward using English-learning apps).

3.5 Experiment

The experiment is used to study:
H1: College student' improvement in English ability has significant relationship with the apps.
Q2: Which app is more efficient for college students to practice speaking skill?
Q3: Which one is better to improve listening skill?
Q4: Which one is more suitable to practice reading skill?

3.5.1 Experiment participants

In the experiment, there were 15 target testers. The target college students all were these exchange students now studying at the University of Borås and coming from Shanghai Science and Technology University (USST) or Shandong Transportation University (SDTU), China. They all had similar educational backgrounds. As college students, they had studied for three years in their original universities in China. That meant they are capable of self- regulated learning in English. Before the experiment, these participants were asked to answer a series of questions about their learning approach, in order to confirm that all of the participants learned English by self-regulated learning approach.

3.5.2 Experimental instrument

The pre- and post-tests of speaking, listening and reading skills were respectively given to all participants before and after the two-week experiment. During the pre- and post-tests, all of the participants were asked to complete English examination papers. The exam papers were from Cambridge IELTS.

IELTS is short for The International English Language Testing System, it is held by the University of Cambridge Local Examinations Syndicate, the British Council and IDP Education Australia Limited (Caroline, 1996). According to the report from IELTS, IELTS is owned by three reputable organizations and goes through the highest quality control. IELTS is the most secure, valid and reliable test of English language accepted by more than 6000 organizations around the world such as government departments, universities, and schools. It has been designed to test all major parts of language skills Listening, Reading, Writing and Speaking. The test motivates candidates to develop a well-rounded knowledge of the language rather than memorization and rote learning. The interactive quality of the test makes it as close to the real-life situation as is possible. Thus, in our experiment, the examination papers of pre- and post-tests were from IELTS.

Pre- and post-tests were identical in format, but the contents of the examination papers were different. The exam papers consisted of an aural exam, reading comprehension and an oral exam. Both of the tests were designed to evaluate the participants' ability of understand, listen to and speak English in a daily life context and to express themselves clearly and correctly.

1. In the listening section, the participants need to hear three passages. Every passage has 10 questions. The participants must base on what they have listened to answer the questions. If a participant leaves a question out or writes a wrong answer, there is no penalty. If a correct answer is given, the student gets a point.

2. The reading comprehension consists of two articles, and there are 13 questions in the following each article. If the participant answers a wrong answer, he or she will not get any point. Each correct answer is worth a point, if a participant leaves a question out there is also no point.

3. For the oral exam, when the participants receive their oral exam papers, they have 5 minutes to prepare these questions. All of the participants need to answer every

question in English and they need to speak for one-two minutes. What they answer will be recorded, in order to grade.

The marking system for the different sections is as follows:
• Aural Test: 30 points.
    Every question is worth 1 point.
• Reading Comprehension: 26
    points. Every question is
    worth 1 point.
• Oral Exam: 30 points.
    Part one, Question 1-3: every question is worth 2
    points; Part two, Description is worth 6 points;
    Part three, Question 1-6: every question is worth 3 points.
The maximum score on both examinations (pre- and post-tests) is 86 points.

The recommended maximum amounts of time to spend on each section are as follows:
• Aural Test: 25 minutes
• Reading Comprehension: 40 minutes
• Oral Exam: around 15 minutes

3.5.3 Experimental process

The experiment included five steps to evaluate the effectiveness of using the selected apps to learn English (see figure 6). In the first step, a pre-test was conducted. All of the participants accepted a test including English listening, speaking, and reading. The materials of the test were from the books of Cambridge IELTS.

Through the second step, all the participants were randomly assigned to three groups: the control group, the experimental group one and the experimental group two. Each group consisted of five students. Each group had a team leader responsible for monitoring and making sure that every participant did the experiment according to the directions.

Step three was the selection of apps. The selection approach was explained in the next chapter (4.2.2: the selection of apps from interviewees' recommendations). There were eight online resources as the experimental tools. They were Crazy English, New Concept English, Speaking English fluently, Learn ABC, Tuoci, Youdao, Hujiang English, and China Daily. According to their functions aiming at listening, reading and speaking separately, these selected apps were classified into three types. Every type included two online resources that had the same function. Then we randomly picked one from each type and put these chosen resources into the sample group one and the rests were put into the sample group two. It meant that there were different online resources in both the sample groups, and these online resources in each group are listed in table 2. Table 3 lists some accessory apps used in both the experiment group one and two.

Table 2: Different apps in sample group 1 & 2

Sample Group One		Sample Group Two		Function
Icon	Name	Icon	Name	
	Learn ABC		New Concept English	Listening
	China Daily		Hujiang English	Reading
	Speaking English fluently		Crazy English	Speaking

Table 3: The apps used in both the experiment group 1 & 2

Accessory Online Resources		
Icon	Name	Function
	Baicizhan	Words learning
	Youdao	Translating

In step four, the members in the experimental group one were asked to adopt resources in the sample group one to learn English, and the experiment group two used the resources in the sample group two. But the control group didn't receive it. A total of three apps were used to the participating students only in the experiment group one and two. The members in experimental group one and two must comply with the experimental operating instructions that were presented in chapter four (4.2.3: design of experimental operating instructions based on interviewees' suggestion.). They had to spend two hour in applying only the three applications matched with them to learn English.

After their two weeks of learning English, all the participants in the three groups were asked to do a post-testing. Through the step five, the difference between the three groups' pre- and post- test scores was counted. After analyzing the difference, we will study whether or not these apps had made a difference, and compare which sample group had a better effect. At last, we analyzed which app on the same type is better and more efficient for students to learn English.

Before the experiment, all the participants were asked to use self-regulated learning approach

The step 1: pre-testing

Fifteen participants → All participants accept a pre-test. → Record their scores (Pre-test scores)

The step 2: random assignment of participants

Randomly assign participants to the control, experimental 1 & 2 groups.

Experimental group 1 (5 people)

Experimental group 2 (5 people)

Control group (5 people)

According to the rank of the popularity

Select eight apps as the experimental treatment.

According to their functions, they are classified into three types

Accessory apps:
1. *Baicizhan*
2. *Kingsoft power translation*

Sample group 1:
1. *Learn ABC*
2. *China Daily*
3. *Speaking English fluently*

Sample group 2:
1. *New Concept English*
2. *Hujiang English*
3. *Crazy English*

The step 3: random assignment of experimental treatment

Experimental group 1

Experimental group 2

Pick one from each type. And then randomly assign them into the sample group 1 & 2.

Reading:
1. *China Daily*
2. *Hujiang English*

Listening:
1. *Learn ABC*
2. *New Concept English*

Speaking:
1. *Speaking English fluently*
2. *Crazy English*

The step 4: Post-test.

Control group

After two weeks, all participants are asked to a post-test.

Record their scores

The step 5: analysis of the pre- and pro-test scores

Record their scores

To evaluate whether or not using apps has made a difference on students learning English.

To analyze which online resource in the same type is better for students to use.

To compare which experimental group has a higher average score.

Figure 6: the flowchart of the experiment

3.5.4 The details of the selected apps
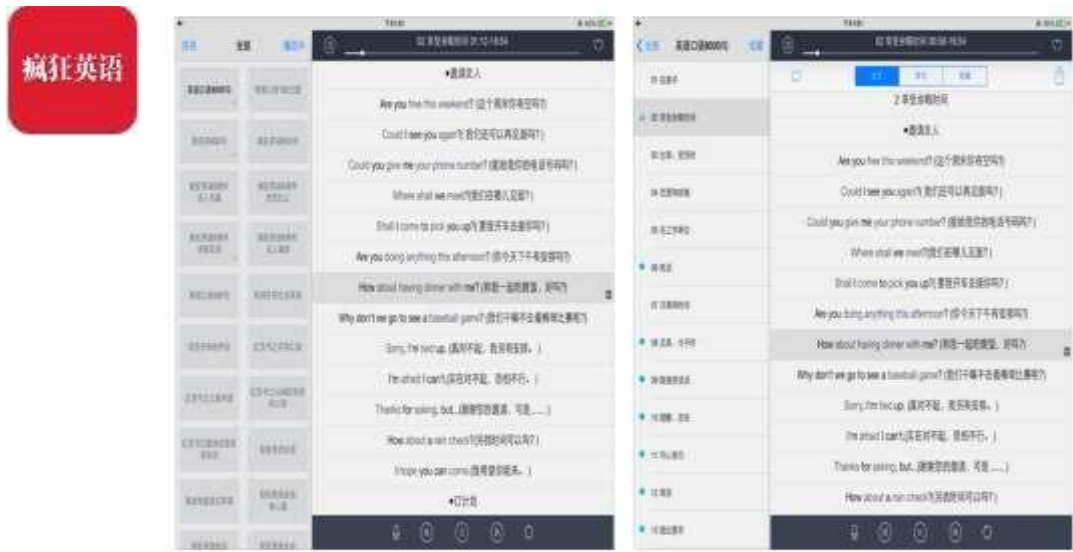
Figure 7: Crazy English

Crazy English is an application that can be downloaded to users' iPads or mobile phones. There are a large number of speaking materials for users. College students can use it to practice their speaking.

Figure 8: Speaking English fluently

Speaking English fluently consists of two parts, training and emigrated. In the stage of training, users can talk with this software after users choose the course (or topic), at the same time, this software records the conversation and then gives a score to users depends on users' pronunciation, tone and rhythm. The words that users pronounced inaccurately will be marked by red, and the accurate words will be marked by green. Once users think they are skillful about the conversation, they can start emigrating. Speaking English fluently covered with numerous topics, for example, American drama, music, travel, and even the topic of Thanksgiving Day. In addition, the app developers set up some lists to encourage users to participate persistently.

Figure 9: Youdao

Youdao is translation software, developed in 2007. According to its official website, there are more than 350 million users using this application up to June, 2013. This app has completely collected many professional authoritative dictionaries. At the same time, it supports Chinese, Korea, Japanese, French, English's translation and their pure pronunciations.

Figure 10: Learn ABC

Learn ABC focuses on your English listening skills. These online English listening materials that are included by this app are from special VOA, standard VOA, PBS and BBC. You can listen to speakers from all over the world for different topics, such as sports, travels, games, stories, news and so on. There is related text under the audio player. Also, some materials include videos.

Figure 11: China Daily

China Daily is Chinese national English daily, established in 1981. China daily releases the real-time news and provides the national news, international express, comments, finance, sports, military, pictures, entertainment, fashion life and other comprehensive news and information. China Daily is an important window for China to understand the world and the world knows China, and also China daily is the first choice for foreigners and learners to know china. Also, China Daily can be used as a kind of English learning resource. College students can use it to improve the English reading comprehension.

Figure 12: Hujiang English

By using Hujiang Learning English app, users can learn grammar, vocabulary, pronunciation, and so on, you can take a test, and you can also learn how to teach others English. The most interesting thing is reading materials, in which you can read the latest news, novels and stories, which can be downloaded into e-Book.

Figure 13: New Concept English

The application of New Concept English aims at improving users' ability of listening and reading. The materials that are included in the software are from the four books "NEW CONCEPT ENGLISH 1, 2, 3 and 4" published by FLTRP (Foreign Language Teaching and Research Press). Also, there are four volumes in the software. Volume one includes basic grammar, morphology and sentence construction. Volume two is Practice and Progress. This part explains grammar gradually and makes users using the typical sentences. Volume three is Developing Skills. This part is focuses on analyzing the internal logical relationship between the sentence, and this is absolutely good for writing. Volume four is Fluency in English. This part covers culture, economics, philosophy, art, sports, politics, aesthetics, psychology, sociology, pedagogy, and other more than 30 disciplines. The sentence construction is complex and changeable, at the same time many essay contains profound philosophical, aesthetic, and unique ways of thinking in western culture. The application also supports audio players. Thus, users can listen to these passages to practice their listening.

Figure 14: Baicizhan

Baicizhan is for users to learn new words with pictures and contextual examples found in the daily news. Users pick up a word, understand its meaning, read the sentence samples, and listen to the speaker. After that, hey can take a test and confirm if they have learned the word.

3.5.5 Quantitative data analysis

After participants' scores of pre- and post- tests were collected, as our experimental data, we needed to use certain software to analyze the raw data. Thus, we choose Microsoft Excel that is most widely used for analyzing data in social sciences (Levine, 1999). We imported the data to Excel and conducted data analyses. There are two kinds of statistical techniques (descriptive statistics and T-test) used for this study.

Descriptive Statistics:
In our study, descriptive statistics contains mean, standard deviation, maximum, and minimum which are useful because it explains the main features of data, distribution of tendency and dispersion of each variable and present relationship between variables with correlation results (Pentti, 2007). It is also good way to summarize the data. Additionally, descriptive statistics explains influence level of capital structure to firm performance.

T-test：
The t-test assesses whether the means of two variables are statistically different from each other (John, 2006). This analysis is appropriate whenever you want to compare the means of two groups such as two different scale variables. The t-test looks at the t-statistic, t- distribution and degrees of freedom to determine a p-value (significant value) that can be used to determine whether the population means differ. In this research, t-test is used and the confidence interval percentage is 95% to study whether experiment participants achieve a significant improvement in English ability by using online resources with self-regulated learning approach.

3.6 Credibility of research findings

3.6.1 Reliability

According to Bryman & Bell (2011), reliability refers to the consistency of a measure of a concept. It represents the degree to which the results of a study are replicable and generalizable when a study is conducted again (Easterby, 2008). The thesis is reliable due to several reasons.

The research model and research process are clearly presented and explained. How to analyze the data is presented distinctly. Besides, the experimental operating instructions and the selection of experimental treatments are explained. Therefore, subsequent research can follow our research process and obtain the similar results.

In the experiment, the data is numerical. It means that we cannot manipulate them with our bias. Furthermore, we use Excel software to conduct statistical analysis. It means that we don't have any room for personal effects to change result of statistical analysis. In the research, the interview contents have been transcribed, we examined and verified the transcript again in order to ensure the interview contents be recorded accurately without the researchers' error and bias.

3.6.2 Validity

According to Bryman & Bell (2011), validity is concerned with the integrity of the conclusion that is generated from a piece of research. Validity encompasses the entire experimental concept and establishes whether the results obtained meet all of the requirements of the scientific research method (Martyn, 2008).

There are two main components (internal validity and external validity) to evaluate whether a research is valid or not (Bryman & Bell, 2011).

Internal validity dictates how an experimental design is structured and encompasses all of the steps of the scientific research method (Martyn, 2008). Besides, internal validity (or logical validity) refers to the causal relationships between variables and results (Gibbert, Ruigrok & Wick, 2008). If all variables, such as treatments and sampling of subjects, are controlled, then we might say that laboratory conditions pertain and that the experiment is more likely to be internally valid (James, 1988). In our experiment, experimental process included five scientific steps and was designed structurally. We set up three groups (two experimental groups, one control group), and the participants were assigned into the three groups randomly. The selection of online resources as the experimental treatment is based on the interviewees' recommendations, and these selected online resources met the criteria of online resources. In the pre- and post-tests, the test papers are from IELTS. IELTS is the most secure, valid and reliable test of English language according to IELTS media center archive (2011). Furthermore, we conducted the interviews to collect students' attitudes towards the new learning approach, before the experiment was carried out to test it. Thus, the research has a strong internal validity.

External validity is concerned with whether the results of a study can be generalized beyond the specific context (Bryman & Bell 2011). External validity is the process of examining the results and questioning whether there are any other possible causal relationships. In the research, the participants are college students in different grades in USST and SDJTU, and they major in different department, such as business, IT, environment and so on. In the experiment, we adopted randomization method to randomly assign participants into three groups, and one group was the control group. Experimental tools were randomly matched with the two experimental groups. Moreover, the experimental operating instructions were designed, and the participants followed it. In the research, the interview contents have been transcribed, we examined and verified the transcript again in order to ensure the interview contents be recorded accurately without the researchers' error and bias. Also, the participants' scores for pre- and post-tests were examined twice.

Chapter 4 Empirical findings and analysis

This chapter includes four parts: results of the interviews; qualitative analysis; result of pre- and post-tests; and quantitative analysis. For the qualitative analysis, the interview contents will be analyzed and mainly focused on three aspects: college students' attitudes towards the new learning approach, recommendations of English-learning apps and suggestions about how to use online resources to learn by themselves. Regarding the quantitative analysis, the authors concentrated on analyze the data from the pre- and post- tests. In this part, we tested the hypothesis (H1) and analyzed which online resources were better for students to improve English in different aspects (Q2, Q3 and Q4).

4.1 Results of the interviews

As mentioned in chapter three, our interview questions consist of fixed questions and improvisational questions. The contents of respondents' replies to fixed questions will be presented firstly, and then respondents' replies to improvisational questions will be analyzed subsequently.

4.1.1 Results of fixed question

Fixed question 1 and 2 is to collect the interviewees' information in English study. The result is present in figure 15.

Question 1: What part do you think that it is difficult to learn, speaking, listing, reading or writing? (Multiple – choice)
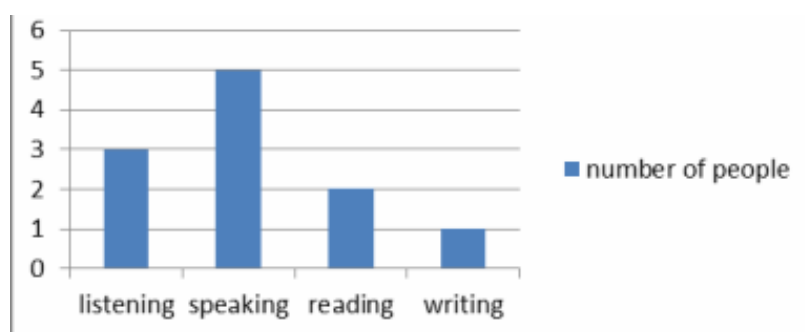

Figure 15: interviewees' weakness in English aspects

Question 2: How much time do you spend learning English every day? And how do you learn English? What is your learning approach?

All of them spend around 2.5 hours in learning English by using relevant apps and books without teachers' instruction.

Fixed question 3-8 are related to interviewees' attitudes towards using English-learning apps with self-regulated learning approach.

Question 3: Which one approach do you think is more effective, the self-regulated one or the teacher-center one?

Four of them considered that the self-regulated learning approach was much more effective and efficient for them to learn English than teacher-centered learning approach. Two of them replied:

> *Flora: For me, the self-regulated learning approach is more efficient, because I know what I need to learn and I am clear about what my weakness is and how to improve it.*
>
> *Lily: In comparison with teacher-center learning approach, the self-regulated learning approach is apparently more efficient for me. The reason is obvious. We have learned English for nearly 12 years under the teacher-center teaching approach, but the result is that we still cannot communicate with foreigners. In my opinion, English is just a communication tool. 12-year English education does not let us either master this tool or excel in this tool. The self-regulated learning makes me improve my spoken English quickly. Since last year, I have been persistent in practicing my spoken English every day, and I have achieved a little success. Now, I can talk with others in English, although I cannot speak fluently.*

Only one considered that both of teacher-center and self-regulated learning approach had a same effect on improving English for her.

Question 4: Do you consider that the self-regulated learning approach is important and the most suitable approach for Chinese undergraduates?

The five respondents brought up the point that the self-regulated learning was an important approach for all undergraduates. But they expressed their different views about whether the self-regulated approach to learn English was suitable way for most college students (figure 16). Three of them agreed it. Flora replied:

> *Flora: I also consider that the self-regulated English learning approach is the most suitable way for college students in China.*

One interviewee considered that the teacher-centered and self-regulated learning approaches needed to be combined. Fly said:

> *Fly: Undoubtedly, the self-regulated approach is a kind of efficient method to learn English for college students, but it is not enough. Nearly half of college students lack of enough self-control, so they need teacher to discipline them sometimes.*

One respondent disagree it. Nan said

> *Nan: Unfortunately, many college students have lost the ability of self-regulated learning approach, because they had received the teacher-center teaching approach since they were children. It is difficult for them*

to control themselves. Thus, the self-regulated English learning approach is just suitable for those college students who can control themselves and persist in learning English without any supervision.
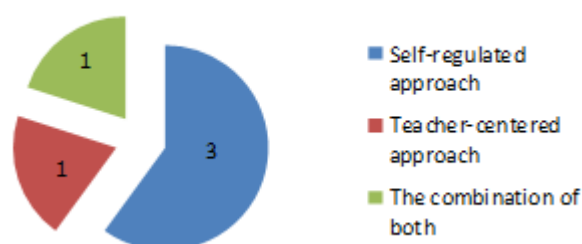

Figure 16: Attitudes towards the suitable approach

Question 5: What are the advantages and disadvantages of the self-regulated learning approach?

In the aspect of the advantages, they reached a consensus that students could conduct targeted learning and training. Besides, Flora and Fly considered that this approach could improve in a particular aspect significantly, such as spoken English.

About the disadvantages, all interviewees mentioned that the approach was not adequate for every student. According to Parker's reply, some students need to invest more interest in English, self-control and perseverance, if they want to adopt self-regulated approach to learn English. The view was echoed by other interviewees. Nan said:

> *Nan: In my opinion, sometimes, what the teacher taught couldn't catch students' interest. Once they lose their interest in what the teacher said, they wouldn't have any interest in learning English. In the self-regulated learning approach, they can read English articles, stories that they like, and listen to English music that their favorite singer sings. During this progress, they improved English ability unconsciously. But I have to say that if students want to have a good command of English, they have to persist in reciting words, reading more English passages, listening some materials in English, and communicating with others in English every day. It is not an easy progress, you know. You have to monitor, supervise and urge yourself to learn English.*

Question 6: Do you use mobile apps to improve your English? What do you think these online resources?

The five interviewees all used mobile apps to learn English every day, but they held different attitudes towards online English learning resources. Three of them considered that online resources were very helpful and they were willing to do it. Two respondents considered that they couldn't find English materials suitable for them from real word, so they were passive to use online resources.

Question 7: What are the advantages and disadvantages of using apps to learn English?

Regarding to the advantages of English-learning apps, being free to get these online resources and the convenience that students can download resources into mobile devices and study without the restrictions in time and place are two main advantages.

Additionally, the large number of relevant apps can provide students with many choices to find the online resources that they are truly interested in. It is worth mentioning that learning materials in most apps are updated periodically.

There are two sides to everything. Too many online resources are also the disadvantage for students, as Nan said:

> *Nan: But I don't agree with that, because there are too many online resources. I don't know which one is suitable for my current learning situation. I feel confused when I choose an application.*

Question 8: How much time do you spend in using apps to learn English every day?

Three respondents took nearly 2 hours to learn English by using online resources every day. Two people spent around 1 hour.

Fixed question 9 and 10 are designed to know interviewees' opinions about which one online English learning resource is better, or which one they always use. The result is presented in table 4.

Question 9: Which one(s) do you always use and like?

Table 4: Respondents' favorite online resources

Interviewee:	Online resource:
Flora	New Concept English; Youdao; Baicizhan;
Nan	China Daily; Hujiang English; Pocket English; Kingsoft Power Word;
Parker	Youdao; Youdao; Crazy Englsih; Learn ABC; Special VOA;
Fly	Baicizhan; Youdao; TED;
Lily	Speaking English Fluently; Youdao; Tuoci;

Question 10: There are a lot of online English learning resources including online materials and applications, such as Hujiang, Learn ABC, Special VOA and so on. Can you recommend some relevant apps?

All interviewees recommended one or several online resources that were suitable for college students. Excerpts of the interviewees' responses are as follows:

> *Flora: Baicizhan. The application listed some new words and reminded users to learn them every day, which enlarge students' vocabulary quickly*
> *Parker: Crazy English.*
> *Fly: Fluent English Speaking is a good application. Students can communicate with AI. The application supplies them with an English environment.*

> *China Daily is also a good resource.*
>
> *Lily: Hujiang English is helpful to learn English. Besides, students can browse news on China Daily. The articles on China Daily are not too difficult for undergraduates to understand.*
>
> *Nan: Learn ABC to practice listening. The application includes a lot of listening materials. These materials are from special VOA, standard VOA or BBC. And the contents involve policy, sport, business, medicine, history, story and so on. Users can find what they like. I think the application---Crazy English is a good application to practice spoken English.*

Question 11: Can you give us some suggestions about using online English learning resources?

All of the interviewees gave their suggestions at the end of the interview. Excerpts of the students' interview responses are as follows:

> *Parker: Interest is one of the most important factors. When choosing an online resource they need to know whether the application can attract them and whether the materials on the application are the object of interest. Once they like the contents included by the application, they are willing to use it. Students need to use different online resources to achieve an all-round improvement in English.*
>
> *Lily: In my opinion, if you want to master in English, you must begin from ABC. It means that you need to have fundamental vocabulary. Then, you'd better to have a short-term and long-term study plans. It is better to spend over 2 hours on English every day. Students need to improve all aspects, listening, speaking, reading and writing skill, not only in a single aspect.*
>
> *Nan: I suggest them to find several online resources that are suitable for them and point at their weakness firstly, and then lay out a study schedule and persist in studying at least 3 hours every day.*
>
> *Fly: Lay out a possible study plan and do not give up halfway. Also, choose the right online resources aiming at your weakness.*
>
> *Flora: From my own perspective, the only difficult is to persist in using these online resources to learn English every day. There is no one to supervise you. College students need to become a self-urger.*

4.1.2 Results of improvisational questions

At the beginning of the interviews, every interviewee was all asked whether English was important for him or her. All of them considered English necessary and they persisted in improving their English every day.

When two interviewees were asked what the key factors were in self-regulated learning, they listed interest, self-scheduling, self-control and perseverance.

Using mobile apps with self-regulated approach to learn English was a new way for Chinese college students. When they were asked "*what are your opinions about the*

new learning approach for college students", three interviewees considered that it required students to have a strong motivation and self-discipline. One interviewee said that successful students were able to study independently and incorporate study time into their busy lives. One respondent replied that students should set aside regular study time, keep up with the flow of the process, and finish within the required period of time.

4.2 Qualitative analysis

Interview results are analyzed in three parts:
1. Interviewees' attitudes toward using mobile apps to learn English by themselves.
2. The selection of English-learning apps from interviewees' recommendations.
3. The design of experimental operating instructions based on interviewees' suggestions.

Analyzing the students' attitudes is to study the first sub question in the research. The relevant apps recommended by the interviewees were used in the experiment as the experimental treatments. Their suggestions were used as the reference, when the authors designed the experimental operating instructions for participants.

4.2.1   Interviewees' attitudes toward using apps to learn English

In this research, the first sub question:
What are college student's attitudes towards using mobile apps to learn English by themselves?

By analyzing the results of interview contents, it is known that the five interviewees hold a positive attitude towards the new learning approach. They considered that the new approach was helpful and effective for a majority of Chinese undergraduates to learn English. Also, they thought that the new approach would make students adapt to self-regulation. It is in conformity with the research model. As illustrated by the previous literatures, using mobile apps to learn English is effective and efficient for students (Conroy, 2010), and MALL can engage students in self-regulated cycles of learning (Kitsantas & Dabbagh, 2010, Allyson & Winne, 2001; Dabbagh & Kitsantas, 2004).

4.2.2   Selection of apps from interviewees' recommendations

By analyzing respondents' reply to the fixed question 10 & 11, we listed all apps that were recommended by interviewees, and classified them into different types according to their different functions. There are five types: Listening, Reading, Speaking, Learning words and Translation.

Also, the experimental participants are supplied with two same accessory online resources: one used to learn new words, another used to translate word. In order to cater to the requirement of experiment in the research, eight different online resources are selected as experimental tools.

When we screened out online resources, we reviewed related literatures and consulted the

criteria for online English resources that had been listed in chapter two. We followed five principles:

1. The selected apps must be downloaded freely into users' computers and mobile phones.
2. Few advertisement and game are included in them. No use for commercial purpose.
3. The materials or contents supplied by the selected apps must meet the criteria for English resources (Tomlinson, 2010) and the guidelines for online English resources (Howard & Major, 2004). The criteria and guidelines have been listed in chapter two.
4. The selected apps have the updatability. It means that learning materials on the apps are updated periodically.
5. They must have a high popularity rate and practical applicability.

According to the interviewees' recommendations, Learn ABC, New Concept English, Hujiang English, China Daily, Crazy English, Fluent English Speaking, Baicizhan and Youdao were screened out (table 5). The eight online resources were also included in the top 10 ranking popularity that was presented in chapter two (2.3.2 Top 10 popular English-learning apps in China). We investigated the details of the eight online resources carefully. They all accorded with the five principles. Thus, the eight online resources were used as our experimental tools. The details of these online resources had been showed in chapter three (3.5.4 the details of the selected apps).

Table 5: Interviewees' recommendations

Type	Name
Listening	Learn ABC
	New Concept English
Reading	Hujiang English
	China Daily
Speaking	Crazy English
	Fluent English Speaking
Learning words	Baicizhan
Translation	Youdao

4.2.3   Design of experimental operating instructions based on interviewees' suggestion

By analyzing the interviewees' reply to fixed question 11, we sum up their suggestions and list them:
1. Spend two hours in using online resources to learn English.
2. Ensure English materials in online resources to be fresh.
3. Use different online resources that have different functions, in order to achieve an all- round improvement in English, not only an aspect, such as speaking and listening.
4. Lay out a study schedule.

Based on these, we designed the experimental operating instructions for the participants. The details are listed in the following:

For the members in experimental group 1 &2 are asked to use relevant online resources to practice

1. In listening aspect for 30 minutes.
2. In speaking aspect for 40 minutes.
3. In reading aspect for 40 minutes.
4. In learning new words aspect for 10 minutes.
5. Use Youdao to translate, when meeting new words.

It means that participants had to spend two hour in applying three different functional online resources to learn English.

For the members in control group, there is not a special rule. It is better that they use books to learn English as far as possible. But they have to spend two hours in learning English every day.

4.3 Results of the experiment

The result of the experiment consists of two parts. This first part is the results of the pre-test. The second part is the results of the post-test.

4.3.1 Results of the pre-test

All of the participants accepted the pre-test including English listening, speaking, and reading examination before the experiment. There were fifteen participants in number. Their scores are recorded in table 6. P1 means participant 1.

Table 6: Results of the pre-test

Group	No.	Listening	Speaking	Reading	Total scores
Control group	P 1	19	16	15	50
	p 2	17	15	17	49
	P 3	19	19	16	54
	P 4	18	18	15	51
	P 5	17	17	17	51
Experimental group 1	P 6	20	18	16	54
	P 7	17	15	14	46
	P 8	16	19	18	53
	P 9	18	16	15	49
	P 10	20	17	17	54
Experimental group 2	P 11	18	16	18	52
	P 12	17	18	15	50
	P 13	20	19	16	55
	P 14	19	16	15	50
	P 15	16	17	17	50

4.3.2 Results of the post-test

After the two-week experiment, all the participants in the three groups were asked to do a post-test. Their scores are recorded in table 7.

Table 7: Results of the post-test

Group	No.	Listening	Speaking	Reading	Total scores
Control group	P 1	18	17	16	51
	p 2	18	18	16	52
	P 3	20	18	15	53
	P 4	19	19	15	53
	P 5	17	16	18	51
Experimental group 1	P 6	22	20	16	58
	P 7	22	17	14	53
	P 8	20	20	18	58
	P 9	21	18	16	55
	P 10	22	18	17	57
Experimental group 2	P 11	21	2	16	56
	P 12	19	21	16	55
	P 13	21	21	16	57
	P 14	23	19	15	56
	P 15	18	19	17	53

4.4 Quantitative analysis

The participants' scores of pre- and post- test as the quantitative data are used to study the research question (Q2, Q3 and Q4) and to test our hypothesis (H1). Thus, the experiment is analyzed in two parts. The first part focuses on testing the hypothesis (H1) by using t-test, which illustrates whether these apps made significance on the students learning English. The second part looks into which one app in the same type is better and more effective for participants to learn English in specific aspects, speaking (Q2), reading (Q3) and listening (Q4).

4.4.1 Analysis of the scores of pre- and post-tests

The three groups' scores for the pre-test are showed in table 8. From the table, the means in the three groups are similar (51, 51.2 and 51.4 respectively). According to Bland (1996), a low standard deviation indicates that the data points tend to be very close to the mean; a high standard deviation indicates that the data points are spread out over a large range of values. Std. deviations of the three groups are also low, which means that all of the participants have much the same English level.

Table 8: Pre-test

Group	n	Total	Mean	Std. Deviation
Control group	5	255	51	1.87
Experimental group 1	5	256	51.2	3.56
Experimental group 2	5	257	51.4	2.19

Table 9 shows the outcome of the post-test. From this table, it is easy to observe that the total score of the experimental group one or two is higher than the control group. The Stdevs of three groups are low, so every participant's score of post-test tends to be close to the expected value. It means that the members in their group have a similar English level. The difference of total scores between the experiment group and control group is nearly 30 points, which is preliminary evidence that the students participating in the experimental group 1 & 2 made a greater progress than the students in the control group; and these online resources have a positive effect on students' English ability.

Table 9: Post-test

Group	n	Total	Mean	Std. Deviation
Control group	5	260	52	1.00
Experimental group 1	5	286	57.2	2.17
Experimental group 2	5	282	56.4	1.52

In order to testify the hypothesis, we adopted t-test approach and the confidence interval percentage was 95%. A detailed result of t-test is showed in table 10, and both the scores of pre- and post-tests are combined into one, because of the possibility to compare the scores.

Table 10: Results of t-test

Test	Part	Experimental group one (n=5)	Experimental group two (n=5)	Control group (n=5)
Pre-test	Listening	91	90	90
	Reading	80	81	80
	Speaking	85	86	85
	Total	256	257	255
Post-test	Listening	112	102	92
	Reading	81	80	80
	Speaking	93	100	88

Total	286	282	260
Difference between pre- and post-test	30	25	5
Paired t-test (*p<.05)	0.0005	0.0011	0.1151

Each of the two experimental groups make significant progress on their post-tests (p < .05), because their p-values (=0.0005 and 0.0011) are less than 0.05. According to the results of paired t-tests of total scores, the experimental group one made the most progress among the three groups. The results support the hypothesis. Thus, H1 is accepted which means that students achieve a significant improvement in English ability by using mobile apps with self- regulated learning approach.

4.4.2 Comparisons among the apps in the same type

According to table 10, there is a significant difference between the total scores of listening and speaking in the three groups. The control group is just 92 (listening) and 88 (speaking), while the experiment group one and two are up to 112, 93 and 102, 100. But there is little difference in the reading aspect among the three groups. In case some participants are good at a single aspect, listening, reading or speaking, we test the standard deviations of the three aspects. The standard deviations are low, which indicates that every participant's scores in the three aspects are close to the mean.

Thus, these online resources have an effect on improving students' speaking and listening, and don't have a significant effect on reading comprehension in the two weeks. Thus, we will further study which one app was more effective for the students to improve their ability of listening (Q2) and speaking (Q4), separately. T-test approach is used again, and the confidence interval percentage is 95%.

Table 11: the comparison of the experimental group 1 and 2

		Experimental group one	Experimental group two
Listening	Pre-test	91	90
	Post-test	112	102
	Difference	21	12
	Paired t-test (*p<.05)	0.002	0.009
Speaking	Pre-test	85	86
	Post-test	93	100
	Difference	8	14
	Paired t-test (*p<.05)	0.003	0.001

Figure 17 shows the contrast of using different online resources to practice listening and speaking between experimental group one and two.
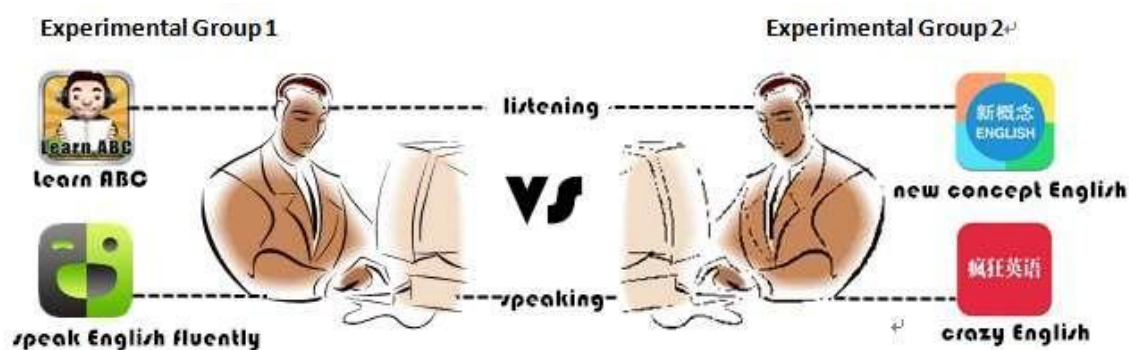
Figure 17: The contrast between the experimental group 1 and 2

According to table 11, the p-value of experimental group one is lower than the one of group two in the listening aspect, which means that the members in group one make a more significant improvement than the ones in group two. It illustrates that Learn ABC is a little better than New Concept English.

In the aspect of speaking, the p-value of experimental group one is higher than the one of group two, which means that the members in group two make a more significant improvement than the ones in group one. There is no doubt that Crazy English is more helpful and efficient for students to improve their ability of listening.

Chapter 5: Discussion and conclusion

According to the previous literatures and findings from the qualitative and quantitative analyses, the research question and sub-questions will be answered. Subsequently, the suggestion for college students will be presented. Finally, the limitations and suggested future work will be listed.

5.1 Conclusion

This study investigated the effect and benefits of using mobile apps as an English learning tool for college students in China. According to the experimental results, using mobile apps in English learning has positive effect on students. The interview results show that college students hold a positive attitude towards MALL. The results were as follows:

1) The effectiveness of using the selected apps in students' English learning had been approved.

In the research, an experiment was conducted to test it. From the result of quantitative analysis in chapter four (see page 50), the participants who received experimental treatments made significant progress on their post-tests, while the participants in the control group didn't make a significant progress. Also, our hypothesis (H1) was accepted. It means that there is a positive relationship between the selected apps and students' improvement in English ability. Furthermore, the result is in conformity with the research model in chapter two. According to the previous literatures, using mobile apps to learn language is effective and efficient for students (Conroy, 2010).

2) College students' attitude toward MALL in English learning was positive.

In the research, we used semi-interview to study it. From the qualitative analysis in chapter four (see page 45), all interviewees considered that the new learning approach was helpful and effective for majority of Chinese undergraduates to improve their English. They felt motivated, delighted and interested in using mobile apps to learn English by themselves. They all considered that MALL can promote college students in self-regulated cycles of learning, which is in conformity with the previous literatures (Kitsantas & Dabbagh, 2010, Hadwin & Winne, 2001; Dabbagh & Kitsantas, 2004).

3) The students in both experimental groups achieved significant improvements in speaking and listening skill by using the two apps: Crazy English and Learn ABC.

According to quantitative analysis (see page 50), the app, Learn ABC, is better for students to improve their ability of listening. Crazy English is more efficient to practice speaking skill.

4) The students in both experimental groups didn't achieve a significant improvement in reading comprehension.

The quantitative analysis indicates that both apps (China Daily & Hujiang English) don't have a significant effect on students' reading comprehension in a short time. It means that

we fail to investigate which one is better in improving students' reading ability.

5.2 Suggestion for Chinese college students

To have a good ability of English is becoming a very important necessity for college students in China. English has become a necessary tool, especially when graduates are hunting for jobs. For Chinese college students, they have learnt English at least for nine years, but many of the students do not have a good command of English, and cannot even conduct a simple communication with foreigners. Junior and senior undergraduates are facing a worse situation that they have to learn English by themselves, because there is no any English course for them. Fortunately, with the development of mobile devices and apps, college students can download English-learning apps directly into their mobile devices, so that they can learn English individually without the restriction of learning materials, time and place. MALL is a new approach for Chinese undergraduates to study English independently. According to previous literatures, MALL has a positive effect on language learning, and can promote students in self-regulated cycles of learning. A lot of literatures have investigated that self-regulated learning approach is effective and efficient way for Chinese students to learn English. According to the experimental findings in this research, the selected apps enhance significant progress in college student's English ability. According to the interview results, the participants held a positive attitude towards using apps to learn English.

From the interviewees' responses, some of other apps are good, though they are not tested in this research because of the limitation of our study such as the experimental time. Interviewees have showed their suggestions that the application Baicizhan is very good for students to learn new words so that they can expend their vocabulary quickly. The software, Youdao, is considered by them as a helpful tool of translation. They expressed their common opinion that they were willing to use Youdao to translate instead of Google Translation or other software. QQ, Wechat and Skype, as real-time communication tools, provide students with an opportunity of telecommunication. Although the experimental result showed that using the two apps (China Daily & Hujiang English) doesn't have a significant effect on reading comprehension in a short time, it doesn't mean that they are not good. The two apps supply a lot of English materials so that college students can find what they are interested in.

When college students use apps to learn English by themselves, they need to search the right and suitable online resources for them so that they can keep their interest on these online materials, moreover, they also need to lay out their own study schemes, set aside regular study time, commit to keep up with the flow of the process and to finish within the required period of time, and keep a positive motivation and self-discipline in order to persist in learning English.

Combining the result of experiment with the interviewees' suggestions, we design a plan of study for college students, especially junior and senior undergraduates. If they want to improve their English, they'd better to use these apps to learn English at least for 1-2 hours every day. A detail is presented in the below:
1. Get up one hour earlier, and spend 30 minutes on Crazy English and Learn ABC, respectively, in order to practice English speaking and listening.
2. Persist in reading English materials and news from China Daily and Hujiang

English.
3. When meeting new words, use Youdao or Kingsoft power word to translate them. These words will be recorded in users' files.
4. Before going to bed, spend 10 minutes on reviewing these new words saved in users' files.
5. Spend extra 20 minutes on Baicizhan so as to expand users' vocabulary.

5.3 Limitation

Although the research has reached its purposes, there are some notable limitations. First, the time of experiment is short, just two weeks. Learning English is an ongoing process (Scifryer, 2012). Obviously, there is a time limit. Second, the number of participants in the interview and experiment limit the reliability of the results. If there can be more participants involving in this research, the reliability and validity of this research can be increased. Besides, all the interview participants and the experiment participants are studying or studied in USST and SDJTU, China, which implies that the research samples are restricted. In addition, because the assessment of pre- and post-test was conducted by the authors, a certain degree of subjectivity can be found.

5.4 Future work

In the future, we plan to do a long-time experiment in which the target participants will be enlarged to 200 college students from different universities in different areas in China. Also, the experimental participants will spend nearly half a year in using these online resources to learn English. At the beginning and end of the experiment, pre- and post-tests will be conducted among all of the participants. We will adopt IELTS (international English language testing system) to evaluate the students' English ability. Additionally, after the experiment, all of the students will asked to answer a questionnaire about their feeling attitude towards using these online resources so that we can analysis how effectively these online resources can promote college students to learn English in China.

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Appendix A: Interviewees' profile

Profiles of the Participants for Individual Interviews

Participant's Name (Pseudonym)	University	Major in	Grade	Online tool
Flora	USST	Information management	3	Mobile phone & iPad
Nan	SDJTU	Business Administration	3	Mobile phone & iPad
Parker	SDJTU	Electronic Commerce	3	Mobile phone & iPad
Fly	USST	Computer Science	4	Mobile phone & Laptop
Lily	USST	Information management	4	Mobile phone & Laptop

Appendix B: Interview content

Interview one

Interviewee: Flora
Interview instrument: Wechat

Interviewer：你觉得学习英语对你来说重要吗？
Flora：　　重要啊

Interviewer：那现在每天花多长时间在英语学习上。
Flora：　　每天有三个小时，如果算上看英文电影的话，每天有六个小时。

Interviewer：那你大一大二那两年的时候，每天花多久在英语学习上呢？
Flora：　　就是英语课上学习而已。
Interviewer：大三的时候，怎么进行英语学习呢。
Flora：　　大三，没有英语课啦，也就没有碰英语啦。顶多是看看美剧，或者英文电影之类的。

Interviewer：你觉的自己在英语听说读，哪一方面感觉自己最为薄弱。
Flora：　　说的上面，我认为自己口语特别不好，很想提升自己的这一方面。因为以后找工作还是需要有英语交流能力。

Interviewer：正如我们所知道的学习方式有：老师为中心的上课教学，同学为中心的集体学习，还有自我管理式学习。能谈谈你以往的学习方式是什么嘛？
Flora：　　初中和高中的时候，都是听老师讲做题。然后上了大学之后，大一大二只有每周两节的英语课，而大三大四之后就没有英语课程，要学习只能通过自学。
Interviewer：你刚才谈到了以前的你主要还是以老师为中心的学习方式，那你觉得这种教育方式高效嘛？对你提升英语有效吗，尤其对你口语这一方面？
Flora：　　这种传统的教学方式，就是做题，应付考试，我可以取得很高的成绩，但是我的实际生活英语还是很差，很难与外国人沟通。我认为，对我口语没有帮助。

Interviewer：那你在大学期间，采用过自我管理式学习嘛？
Flora：　　有。我记得在我准备考托福之前，我每天用百词斩去背单词，这个软件能帮我规划，每天能必须要背多少个单词。我觉的个软件很用用。

Interviewer：你是否也这样认为，对于当代大学生，通过利用网络资源自学英语，是不是一种更为高效的学习英语的方法。
Flora：　　是的。现在有很多的网络资源，并且很容易获取，很方便就可以下载到我的电脑，手机或者Pad上，并且这些学习英语的应用程序或资源几乎都是免费的。

Interviewer：让你在这种学习方式和传统老师为中心的教学模式相比，你觉得哪一种对于你而言，最能提升自己的实际英语。哪一种是更适合于当代的大学生？
Flora：　　对于我来说，自我管理式的学习更为高效，因为我知道自己的薄弱环节在哪，从网上下载相关的资源，可以很有针对性的进行学习。而对于当代的大学生

来说，我觉得前者，应该也是最为适合他们的。

Interviewer：正如我们所知啊，网络上有很多的资源都是关于英语学习的，资源太多去找到适合自己的英语学习资源也是件难事，你能推荐几个关于英语学习的App或者网络资源嘛？

Flora：China Daily，我之前用这个提升自己的阅读，我从网页上可以直接看到最新的咨询信息，因为它属于电子报纸，上面的单词也大都是自己熟知的，上面的新闻内容种类很多，有关于政治的，有关于体育，娱乐的等等，也就是说，在上面我能找到我感兴趣的。另外，我要推荐的App是百词斩，我之前用这个背单词，效果很不错，短时间内就扩大我单词量。

Interviewer：你有什么建议对于当代大学生使用网络资源去学习英语？

Flora：我是觉得用这些 App 或者资源，比较难坚持，估计会三天打鱼两天晒网。

Interview two

Interviewee: Nan
Interview instrument: Skype

Interviewer：平时你注重学习英语嘛？在英语学习上花的时间多吗？
Nan：　　　以前会，但现在少啦。但我还是坚持每天留些时间去学习英语，因为，英语
　　　　　很重要，以后毕业找工作，很看重应聘者的英语能力，尤其是在外企工作。

Interviewer：那你认为你现在自己英语哪一方面比较薄弱？是口语吗？
Nan：　　　不是，我的最大问题是阅读。不像是看中文书籍，我扫一眼就知道内容的大
　　　　　概，而英文书籍，我要反复的一字一句的看，有时候这样也很难理解。

Interviewer：能和我谈谈你以前的学习方法吗？大一大二的时候，和你大三的时候？
Nan：　　　大一大二的时候，我就听老师讲课，课下完成老师所布置的作业。

Interviewer：那也就是说，以教师为中心的英语学习，那你喜欢这种模式吗？
Nan：　　　不喜欢，这种教学方式所传授的英语知识，很多我都不敢兴趣，学习效率也
　　　　　比较低下。就是考试前，比较有用，可以很针对性去应对考试。

Interviewer：那你觉的自我学习英语对你而言会更有效果吗？
Nan：　　　嗯，对你现阶段我而言，这种方式更为高效。因为，我知道自己英语具体哪
　　　　　个方面比较薄弱，我可以集中在这一方面进行学习。

Interviewer：那你认为哪一种学习方式会更加适合当代的大学生，自我管理进行英语学习，
　　　　　还是老师为中心的传统教学？
Nan：　　　自学并不适合所有大学生。很多的学生从小学到高中已经习惯了老师为中心
　　　　　的教学模式，他们自学的能力很低下，对他们而言自我管理并不适合。

Interviewer：让我谈论下关于网络上英语学习资源。现在互联网上有大量的App软件，材料
　　　　　或者资源都是关于英语学习的，你使用它们嘛？
Nan：　　　我手机上使用的是金山词霸，电脑上使用有道词典。有道词典有划词功能可
　　　　　以方便查询单词。我还经常使用Learn ABC练习自己的听力，这个软件上的听
　　　　　力材料来自，special VOA, standard VOA, BBC等，内容也是时事，涉及面广，
　　　　　有故事有新闻有关于历史的等等，可以收听我自己感兴趣的。之前，为了锻
　　　　　炼自己的口语，我还用疯狂英语这个软件。

Interviewer：你之前谈论到你的英语阅读相对薄弱。那你用过相关的网络资源去提升它嘛？
Nan：　　　这个没有。我还是看纸制书籍去提高阅读或者教科书。

Interviewer：那你认为对于当代大学生，利用网络资源进行自我学习英语的这种方法可行
　　　　　吗？换而言之，你觉得这种方式高效吗？
Nan：　　　我并不是很赞同，网络资源太多啦，学生们的注意力很容易被分散，并且也不
　　　　　知道是否这些资源对我有英语学习有帮助。在挑选软件的时候，也比较迷茫。

Interviewer：关于你所用过的网络资源，你能推荐几个嘛？

Nan： Learn ABC很使用于听力学习。金山词霸和有道词典，都是很不错的翻译软件。TED，这个软件可以看直接看很多讲座，但这上面的有些资源很学术，很难理解，并不是适合我们去学习。

Interviewer：那你有什么建议对于当代大学生，采用网络资源进行自我学习英语的时候。

Nan： 嗯，我建议他们，首先要找适合自己的学习材料，根据自己的那方面薄弱进行针对性学习。其次，自己要对自己进行规划，知道自己该有什么网络资源，每天花多长时间在它们上面。

Interview three

Interviewees: Parker, Fly, Lily
Interview instrument: QQ

Interviewer：我的采访主题是：大学生使用网络资源，自学英语。首先，我想问下，学习英语对你而言重要吗？
Parker：　重要
Fly：　　Absolutely
Lily：　很重要啊。

Interviewer：那你们平时花多上在英语学习上面？
Fly：　如果按，处在英语环境中，每天要有4个小时左右。一部英文电影就有2个多小时啦。
Lily：　我每天会花半个小时看英语文章。

Interviewer：你们觉得在学习英语方面，那方面比较薄弱。
Parker：　阅读，
Fly：　我自己缺乏单词量，尤其是生活方面。我之前也背过很多单词，但和外国人交流的时候，但他们用的和我们学习的差别很大。所以我想学习一些地道的。
Lily：　我是口语，我个人而言，能听懂对方讲什么，但自己不知道如何去回复人家。

Interviewer：谢飞，你说你每天花4个多小时才英语学习，你觉得这对你的英语提升效果明显吗？
Fly：　我每天处在这样一个语言环境中，我觉得是一种潜移默化的学习，自然而然。

Interviewer：那对于你们大一大二的时候，是怎么样进行英语学习呢？
Parker：　有英语课，那时候就上课听老师讲
Fly：　那时候我们有针对听力，阅读，写作和口语的课程。
Lily：　因为我们是英语专业的，大一大二时候有很多的英语课程。课下，看看美剧，听VOA，去锻炼自己的听力。

Interviewer：你们都谈到了，主要的一种学习方式就是听老师讲课，那你们觉得这种教学模式，对你们英语提升快嘛？
Parker：　我也赞成丽丽的看法。老师为中心的讲课模式，对于我的实际英语作用不大，语言是个交流工具，我学习这么多年的英年，并没能让我掌握这项技能，我还是不和他人进行流利的英语交流
Fly：　我决定国内上课的效率是很高的，学生们学到东西很多，因为属于是填鸭式的教学，学生们被灌入大量知识。因为老师们，他们知道哪些英语材料是适合你去学习的，对你有帮助的，他能给你提供指导性建议。
Lily:　在硬式上提升很快，我可以在考试中取得高的成绩，但对实际英语作用不大。也正是这种教学模式，使中国大学生更善于去阅读和写作，而对于口语，尤其是与外国人交流，没有任何帮助。

Interviewer：但我要提一点，我们学校还属于国内比较不错大学，但我估计有50%学生，没有英语沟通能力，不能很好理解外国书籍中内容，尽管他们学习英语已经有9年。

Interviewer：那你们觉得，你们大学期间，采用自我学习英语比老师教课是否对于你们英语提升更快？

Parker：我也同意他们二人的观点，无可厚非，自主学习的效率肯定比老师授课要高效，但前提是学生是否能做到自主自律。同样，学习英语的兴趣是很关键的。

Fly：如果，能有个相对好的自我管理，自主的自我学习，但很少有人能够做到，大部分学生包括我在内都缺乏自制力。对于大部分大学生，从大三开始没有英语课后，大家都停止学习啦。

Lily：中国学生，从小就是接受老师为中心的教学模式，老师说什么才去做，很少能够主动去自我学习。

Interviewer：那你们觉得有什么比较好的网络资源适合学生去学习英语的吗？

Parker：有道每日英语啊，我之前每天看这个，它上面的文章能让我感兴趣。为了练口语，我经常使用疯狂英语去学习。

Fly：我个人比较喜欢百词斩，它能让你对背单词感兴趣。在使用这个应用软件背单词的时候，感觉像是在做游戏。使用者很有兴趣在使用这个过程中。还有Learn ABC提供了大量VOA的新闻材料。

Lily：沪江英语，我之前用这个，对我的英语提升很快。同时，我以前用英语流利说，提升自己的口语。有时候，我也上China Daily的官网去浏览新闻，它上面的文章，比较浅显，对我来说不是那么困难。坚持每天看China Daily对英语阅读有很大的帮助。

Interviewer：最后，你们能给出些建议，关于大学生采用网络资源进行自我学习。
兴趣是最为主要的。选择网络资源的时候，一定要感兴趣，只有自己喜欢了，才能愿意投入到学习英语当中。制定一个可行的计划，不要半途而废。我认为，要先从基础的词汇学好，扩充自己的词汇量，要对自己有个计划。

University of Borås is a modern university in the city center. We give courses in business administration and informatics, library and information science, fashion and textiles, behavioral sciences and teacher education, engineering and health sciences.

In the **School of Business and IT (HIT),** we have focused on the students' future needs. Therefore we have created programs in which employability is a key word. Subject integration and contextualization are other important concepts. The department has a closeness, both between students and teachers as well as between industry and education.

Our **courses in business administration** give students the opportunity to learn more about different businesses and governments and how governance and organization of these activities take place. They may also learn about society development and organizations' adaptation to the outside world. They have the opportunity to improve their ability to analyze, develop and control activities, whether they want to engage in auditing, management or marketing.

Among our **IT courses**, there's always something for those who want to design the future of IT-based communications, analyze the needs and demands on organizations' information to design their content structures, integrating IT and business development, developing their ability to analyze and design business processes or focus on programming and development of good use of IT in enterprises and organizations.

The **research** in the school is well recognized and oriented towards professionalism as well as design and development. The overall research profile is Business-IT-Services which combine knowledge and skills in informatics as well as in business administration. The research is profession-oriented, which is reflected in the research, in many cases conducted on action research-based grounds, with businesses and government organizations at local, national and international arenas. The research design and professional orientation is manifested also in InnovationLab, which is the department's and university's unit for research-supporting system development.

HÖGSKOLAN I BORÅS

VETENSKAP FÖR PROFESSION