

Chinese conversation lessons via web-based application:

A pilot study of hotel front office staff

บทเรียนสนทนาภาษาจีนโดยเว็บแอปพลิเคชัน : โครงการนำร่องพนักงานฝ่ายต้อนรับ

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Supachai Jeangjai

ศุภชัย แจ่มใจ

Faculty of International Studies, Prince of Songkla University, Phuket Campus, Thailand

คณะวิทยาศาสตร์ มหาวิทยาลัยสงขลานครินทร์, ประเทศไทย

supachai.je@phuket.psu.ac.th

Saranya Pathanasin

สรัญญา พัฒนสิน

Faculty of International Studies, Prince of Songkla University, Phuket Campus, Thailand

คณะวิทยาศาสตร์ มหาวิทยาลัยสงขลานครินทร์, ประเทศไทย

saranya.p@phuket.psu.ac.th

Abstract

Phuket Island is one of the top tourist destinations in Thailand, with Chinese tourists as the biggest customers. Despite the fact that the province receives a great number of Chinese visitors all year round, it does not have enough human resources with adequate Chinese language skills. A needs survey of hotel staff found a high demand for learning Chinese, particularly Chinese language that was useful in the context of improving service levels in their everyday work. It was also found that many of these staff had both time and budget constraints. To solve these problems, a pilot project developed a web-based language learning application namely; <https://www.chinyhotels.com>. The aims of this project were to design Chinese conversation lessons for hotel front office staff via a web-based application and, to investigate the effectiveness of such lessons from learners' perspectives. The cohort was 26 hotel front desk staff. A number of participants were selected from three hotels using convenience sampling. None of the participants had previously enrolled in Chinese language classes. A pre-test and a post-test were conducted to measure language progress after their one-month of practice. Post-test scores were higher and more statistically significant than pre-test scores with $p < 0.05$. In addition, results of the project evaluation by the participants showed a high level of satisfaction with self-study using the web-based application. The success of this project suggests further development on a bigger scale.

Keywords: Chinese conversation lesson, hotel front office staff, web-based application

บทคัดย่อ

ภูเก็ตเป็นเมืองท่องเที่ยวอันดับต้นๆของประเทศไทย โดยมีนักท่องเที่ยวชาวจีนเป็นกลุ่มที่ใหญ่ที่สุด ถึงแม้ภูเก็ตจะต้อนรับนักท่องเที่ยวชาวจีนจำนวนมากตลอดปี แต่จังหวัดยังขาดแคลนบุคลากรที่สามารถสื่อสารภาษาจีนได้ดีพอ จากการสำรวจความต้องการเบื้องต้นพบว่า พนักงานโรงแรมมีความต้องการที่จะเรียนภาษาจีนเพื่อใช้ประโยชน์ในการทำงาน ทั้งนี้พนักงานโรงแรมซึ่งเป็นกลุ่มเป้าหมายไม่สะดวกที่จะเรียนภาษาจีนเนื่องจากเวลาและทรัพยากรที่จำกัด การศึกษานี้เป็นโครงการนำร่องที่จะใช้แอปพลิเคชันสอนภาษา <https://www.chinyhotels.com> ช่วยแก้ปัญหาข้อจำกัดดังกล่าว งานวิจัยนี้มีจุดประสงค์ 2 ประการคือ ออกแบบบทเรียนสนทนาภาษาจีนให้พนักงานแผนกต้อนรับของโรงแรมได้เรียนโดยเว็บแอปพลิเคชัน และเพื่อประเมินประโยชน์ของบทเรียนดังกล่าวจากมุมมองของผู้เรียน ผู้เข้าร่วมโครงการเป็นพนักงานโรงแรม จำนวน 26 คน สุ่มเลือกตามความสะดวกจากจาก 3 โรงแรม โดยที่ไม่เคยมีใครเคยได้รับการฝึกอบรมภาษาจีนมาก่อน ผู้เรียนทำแบบทดสอบก่อนเรียน แล้วฝึกภาษาจีนด้วยวิธีเรียนรู้ด้วยตนเองเป็นระยะเวลา 1 เดือนโดยใช้แอปพลิเคชันสอนภาษา จากนั้นทำแบบทดสอบหลังเรียน ผลการทดสอบพบว่า คะแนนหลังทดสอบสูงกว่าคะแนนก่อนทดสอบอย่างมีนัยสำคัญทางสถิติที่ระดับ $p < 0.05$ นอกจากนี้ผู้เรียนให้คะแนนในแบบประเมินความพึงพอใจในระดับสูง ผลการศึกษาสามารถเป็นประโยชน์ในการพัฒนาโครงการได้ต่อไป

คำสำคัญ : บทเรียนสนทนาภาษาจีน, พนักงานฝ่ายต้อนรับ, เว็บแอปพลิเคชัน

1. Introduction

Rich in natural beauty and with a diverse cultural heritage, Phuket Island is one of the most famous destinations for visitors from around the world. Every year, Phuket receives a huge number of international visitors. According to the Tourism Association of Thailand, in 2019 alone, the estimated number of international tourists to Thailand was over 38.27 million people with expenditures over 2,000 million Baht. Chinese tourists, with over ten million visitors, made up the biggest group (TAT, 2019). A report by the Phuket Provincial Statistical Office in 2016 showed that the province generated income of 377,878 million baht from over 13 million tourists. Among these were 2.5 million Chinese tourists who were the major group (Phuket Provincial Statistical Office, 2016). For many years Chinese guests have consistently been the main customers for tourism businesses on the island, for example, restaurants, travel companies, shopping centers and hotels.

Despite the huge number of Chinese tourists in Phuket, the Island lacks human resources with adequate Chinese language skills. Most communication is conducted via tour guides or coordinators, so customer services are often not provided promptly and effectively to guests. Similar to other workers in the tourist businesses in Thailand, most hotel staff in Phuket can only communicate in Thai and English. The lack of Chinese language skills prevents them from providing service directly to the guests, and it becomes an obstacle in their daily work.

Prior to the present project, a small-scale needs survey in the form of telephone conversations and in-house visits was conducted by the researcher team. The results showed a great demand for learning Chinese language among hotel staff in the area. However, most of the staff do not have enough time to enroll in Chinese language courses. Moreover, the cost of language training is prohibitive for them. It was also found that it is not always possible for the employers to provide language courses as an in-house training because a number of Chinese teachers in the area are not enough to fulfill this demand.

In order to improve the situation, a web-based application namely <https://www.chinyhotels.com>, was created to respond to this need. This was a pilot project initiated as the first step of a bigger project on Chinese language learning for tourism workers in the Andaman area. For this pilot project, the application was designed by considering the two most important demands of the learners, which were: self-study and Chinese for a specific purpose. Self-study would allow learners to overcome the limitations of time and budget. The learners can practice listening to and speaking Chinese conversation at their convenience, and at no cost. In addition,

the content was prepared for learners to practice useful conversations that would directly benefit their everyday jobs, in this case, conversation at the hotel front desk. Thus, the present study had two aims. Firstly, to design Chinese conversation lessons for hotel front office staff via a web-based application. Secondly, to investigate the effectiveness of these Chinese conversation lessons.

In designing lessons and self-study techniques for the application, Chinese for Specific Purposes (CPS) and mobile learning concepts were employed as a framework for the present study. Several previous studies have highlighted the attempts of CPS development and the success and usefulness of mobile learning. These studies are elaborated on in the literature review section. The methodology of the study will be described, followed by the results, and finally a discussion of the findings.

2. Literature review

According to the Confucius Institute Headquarters (Hanban), the demand for learning Chinese as a foreign language is growing rapidly. Over 100 million people learn Chinese worldwide for different purposes (Hanban News, 2017). To meet with such a huge demand, teaching pedagogy has been developed and new technologies have come into play. In this literature review section, the importance of language skills for hotel staff is described by presenting relevant past research. Then, concepts of Chinese for Specific Purposes and mobile learning are reviewed through a number of studies, for it is contextual knowledge that built our research design.

2.1 Communication: An essential skill in hotel operational staff

Hotel operations staff, such as servers and receptionists, have direct contact with guests on a daily basis and can increase guest satisfaction if they are knowledgeable in their work, have a service mindset, and good interpersonal skills. Undoubtedly, operational staff are one key to success in the tourism industry, as proven by many studies in the field of tourism study. Among them, Rao and Sahu (2013) analyzed customer satisfaction with service quality in a hotel in Bhubaneswar. The study was conducted by focusing on guests' expectations of and satisfaction with the service they had received from front office staff during their stay at the Mayfair hotel. Using a questionnaire, respondents answered 60 questions about five aspects of service quality; tangibility, reliability, responsiveness, assurance and empathy. This data was analyzed to find levels of satisfaction and expectation. Overall, results of the study showed that customers' expectation of front office service was at a high level and their satisfaction

with the service was at the highest level. In terms of empathy, results showed that the guests expected front office staff to be able to communicate effectively in English. This proved the importance of the front office's role in hotel service. It is expected this result would be similar around the world.

Attention turns to Thailand, where our study has been conducted. Saibang and Schwindt (1998) reported in their needs analysis of training in hotels in Nakhon Sawan province and Bangkok city that most customer complaints were about staff who came in direct contact with customers, such as servers, housekeepers, and front office staff. Results of the study showed that the hotel staff needed to be trained in basic skills such as problem-solving and customer service. English as a second language was also needed, particularly for the hotel in Bangkok where there were many foreign guests. Furthermore, on the point of language skills, Jhaiyanuntana and Nomnian (2020) analyzed the intercultural communication competence (ICC) of intern staff in the hotel training center at their university. They used the ICC model as a framework for their analysis. The model consists of five aspects: attitude, knowledge, skills of interpretation and relating, skills of discovery and interaction, and critical cultural awareness. The participants of this study were 26 undergraduate students of the Business Administration in Tourism and Hospitality Management Program, (International Program). Half of them were in third year and the other half were in fourth year. Employing Likert's (1932) psychometric scale in quantitative analysis, results of descriptive statistical data showed that the participants rated high in all ICC aspects. However, it was found that English alone was not sufficient in intercultural communication, especially when the participants had to provide service for Chinese guests, who could not speak English. When students interacted with Chinese guests they would try to communicate using gestures, signs and symbols, or asked a friend who could speak Chinese to help them communicate. Participants faced cultural challenges when they interacted with Chinese guests, such as when they had to ask a guest to stop smoking in a non-smoking area. In addition, results also showed that Chinese culture was a challenge for participants in terms of critical cultural awareness. Participants had to overcome barriers due to different cultural practices between Chinese and Thai people. The researchers suggested that the interns needed to have both knowledge of cultural diversity and international service protocols in order to communicate effectively in an intercultural context.

As can be seen in the studies reviewed above, language skills are crucial for front office staff in providing service. The research conducted in Thailand shows that Chinese language is important for the tourism industry of the country.

2.2 Chinese for specific purposes (CSP) in Thailand

According to Kanoksilapatham (2012), Chinese is among the top five languages for specific purposes in Asia, alongside English, Japanese, Korean and Arabic. The purpose of teaching and learning Chinese is mainly for economic reasons. Chinese language is one important skill for 21st century employment. Important foreign languages are taught throughout Asia to serve different needs of learners, for instance, language for flight crew and aviation, banking and the medical profession, just to name a few. In light of these teaching and learning activities for special purposes, Kanoksilapatham identified the following challenges: teachers who, though qualified for language teaching, know little about the professional field of special purposes; passive learners; and the widespread use of general textbooks which have not been designed for specific learners. On the issue of a Chinese for specific purposes textbook as discussed in Kanoksilapatham, there have been attempts at producing teaching materials for CPS. For example, Min et.al (2018) designed a handbook of Chinese for trade exhibitions for Thai entrepreneurs to learn Chinese in a fast way. The handbook was developed in steps. Starting with a design thinking approach which allowed the researcher team to identify the problems of teaching materials in the CSP area, the team found that general Chinese textbooks could not meet the learners' specific needs. In the second step, they employed the Delphi method to survey the needs of the target learners, who happened to be entrepreneurs with very poor Chinese language skills. Then, the content for the Chinese for trade exhibition handbook was designed using a communicative syllabus. Lastly, knowledge management was organized for Chinese language instructors as a focus group. As a result, the Chinese handbook for trade was drafted in three main parts: pre-exhibition, during exhibition and post-exhibition. Learners could learn Chinese language through four modules: vocabulary, sentences, dialogues and practices.

Technology was employed in our CPS project since there are a good number of studies that have proved the usefulness of mobile learning in language studies. Some of these are presented below.

2.3 The concept of mobile learning

Mobile assisted learning is possible using different kinds of devices, such as MP3/MP4 players, smartphones, e-book readers, tablets, laptops and computers. According to Ogata and Yano (2005 cited in Bachore 2015), mobile assisted learning has four main features, namely accessibility, immediacy, interactivity, and situated learning of activities. Briefly, accessibility refers to the possibility that learners can access or own a device(s). Immediacy refers to the

opportunity for learners to learn, regardless of place or time. Interactivity is the ability of learners to interact with their teachers and colleagues through their devices for the purpose of language learning. Lastly, mobile assisted learning facilitates different learning activities that are situational and contextual.

Rosell-Aguilar (2017) classified mobile applications that are applicable for language learning into three categories. First, language learning applications have been designed purposely for language learning activities with features such as interaction with native speakers, vocabulary practice and grammar lessons. Second, applications have not been designed for language learning, but are useful for language learning such as multilingual text input, several communication tools and speech-to-text tools. Third, dictionaries and translation applications which can be integrated with other applications such as e-book readers. These applications allow users to look up meanings and learn foreign languages while reading. The mobile learning application in the current study could be categorized in the first type according to Rosell-Aguilar (2017) because it has been designed for language practice.

Chen (2016) evaluated seven mobile applications for language learning. The applications were: Duolingo, Speaking English Fluently, Youdao Dictionary, VoiceTube, ShanBay Vocabulary, Speak English, and BrainPop Featured Movie. These applications are designed for English language learning by self-study. Participants in this study were adult immigrants who had limited English fluency. It was found that there was no application that could answer all the demands of different learners. Therefore, Chen's study led us to develop a new mobile learning application that better meets the specific purposes of our target language learners (front office staff). Besides several applications, there are games that are designed for language learning. Bustillo et al. (2017) used language games in the form of mobile applications to improve the communication skills of learners with an A1 level of English. Results showed that 75% of the learners in his study were satisfied with the gamification concept in promoting language learning. Another work that reinforces the usefulness of language learning applications was research by Sung et al. (2015), who compared performance between learners who used mobile assisted language learning (MALL) and those who did not. It was found that MALL helped students to achieve higher scores than their counterparts. Sung et al. (2015) explained that MALL had several advantages over the traditional language classroom, and that the integration of MALL in the classroom would benefit students. Furthermore, mobile applications were found to be more practical than laptops, and multi-skill practice such as listening and reading, was better than single skill practice.

Focusing on learning Chinese as a second language (CSL), Xu & Peng (2017) carried out research on the use of the popular Chinese chat application, WeChat. In their study, college students were asked to discuss nine topics and record their voices using the application. Their audio recordings were then evaluated by two native speakers of Chinese. Results of the study confirmed that students gained benefits from mobile-assisted learning both in terms of language skills and positive attitudes. Besides existing tools, mobile applications have been designed specifically for CSL. For example, Darmanto and Hermawan (2016) built a Mandarin language mobile learning application for use by high school students in Indonesia. The application was practical because it could be used with smartphones, tablets and PCs. It allowed teachers to develop lessons for students in different skills such as listening to the tones of Mandarin, speaking, reading and writing. Results of the study showed that students gained more confidence through self-learning, and it also increased their learning motivation.

The studies above indicate that mobile learning applications are fruitful in promoting language teaching and learning. However, in order to achieve the most benefit, it is necessary to design a mobile learning application that aligns with CPS outcomes. As explained earlier, the target group of our study was hotel staff in the Phuket province who needed to improve their Chinese communication skills for their daily work. They had both time and financial constraints. To help learners, we designed language lessons that met their specific needs using a web-based application. The hope was that this self-study method would benefit both individuals and the community as a whole.

3. Methodology

In conducting this research project, the researchers worked under the guidelines of sponsorship. Therefore, the research was designed to serve the local community.

3.1 Participants

The participants in this project were selected from three hotels in the Kathu sub-district, which was our focus area. From our needs survey, 80%-90% of guests at the three hotels were Chinese tourists. Most of them arrived in tour groups, and hotel staff communicated with them by having a tour leader interpret their messages to the guests. The number of participants in our study was 26, and all worked in the front office department.

3.2 Methods

The method for our study consisted of four steps.

The first step was a needs survey. An informal survey was conducted in the sub-district prior to this project to find out the requirements of hotel staff in learning Chinese. The results confirmed a demand for learning Chinese language from our target participants and their organizations.

The second step was the development of a web application for learning Chinese language, namely: <https://www.chinyhotels.com>. The lessons were designed for specific purposes, which were Chinese language conversations for hotel front office staff. The content was created after interviewing learners and hotel administrators, and based on textbooks. The main skills to be developed were conversational skills because they were the most demanded by the learners. In addition, the application was designed so that hotel administrators, i.e. department managers, could monitor the learning progress of their learners. Because it was a web application, it allowed the researchers to update and add more lessons for learners to continue their self-study at higher levels.

Learners could learn a number of lessons based on different situations in their work, such as greeting customers, receiving bookings and giving room information. Each situation consisted of four modules: vocabulary (20-30 words), sentence (approximately 20-30 sentences), conversation (approximately 5-10 conversations) and exercises (10 multiple choices questions). Learners could click audio icons to listen to pronunciation spoken by Chinese native speakers, and words in Chinese. Pin-In (Chinese pronunciation using the Roman alphabet) and Thai translation were highlighted in matching colors to help readers recognize Chinese words, pronunciation and meanings.

At this stage, there were two completed lessons which were: checking-in and checking-out. The validity of the lessons in our study was checked by Thai lecturers who have years of experience in teaching Chinese language. The correctness of conversation was checked by the Chinese Director of the Confucius Institute, Prince of Songkla University in Phuket, who is a native speaker of Chinese. Then, the translation was checked by the Thai lecturers. Figure 1 shows an example of a web page at <https://www.chinyhotels.com>.

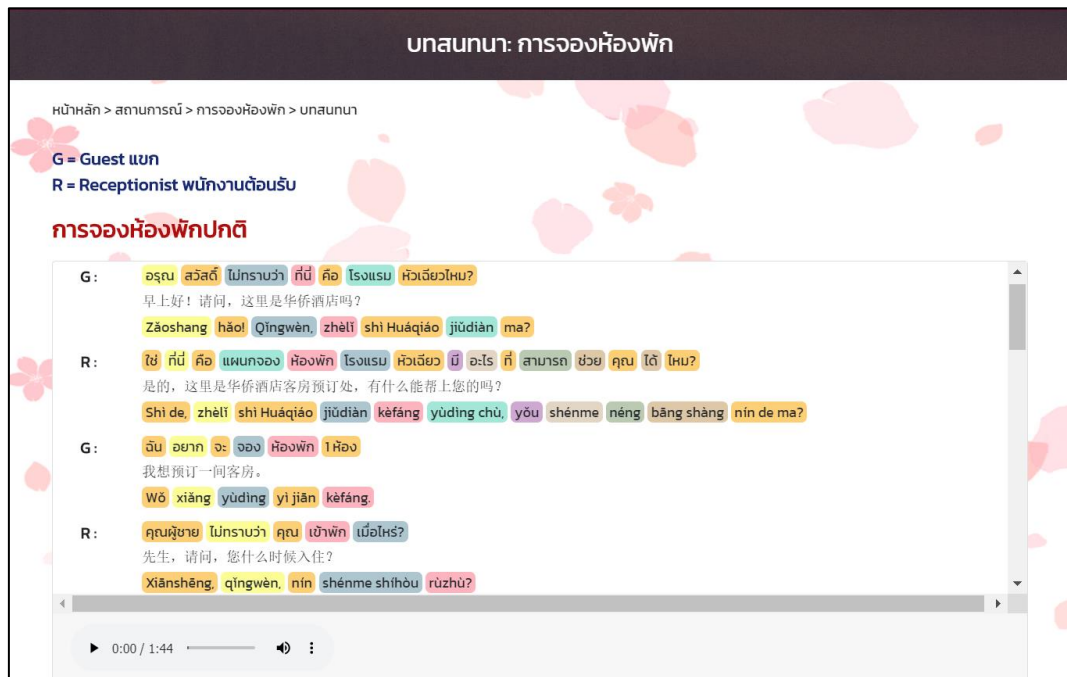


Figure 1 Reservation conversation in <https://www.chinyhotels.com>

In the third step, the research team contacted the hotels to arrange small meetings with participants in each hotel. The research team explained the purpose of the project and invited participants to join in the project. All participants willingly agreed to be part of the study. Our research was designed to be Quasi-Experimental research, (one group with pre-test and post-test design). The researchers gave training on the web application by assisting users to create their personal accounts. A 20-question pre-test was administered (Appendix).

Then, the participants were asked to self-study the two lessons: checking-in and checking-out, for one month. During the self-study period, the research team communicated with the users via the Line group application and phone calls to follow up on their progress and assist them when they had problems such as logging in.

Lastly, after the users had completed the two lessons, they were asked to do a post-test. Similar to the pre-test, the post-test had 20 multiple choice questions that covered vocabulary, sentences and conversations (Appendix). The users were also asked to answer a questionnaire about their satisfaction with <https://www.chinyhotels.com> for their self-study.

3.3 Data analysis

The pre-test scores were statistically compared to the post-test scores using the Wilcoxon signed-rank test to determine the user's progress in learning Chinese. The Wilcoxon signed-rank test was chosen for our data analysis for two reasons. First, score distribution was

not normal due to the small number of participants. Second, the pre-test and post-test scores were related due to observations being collected from the same individual. The questionnaire results were analyzed based on Likert's (1932) psychometric scale to see the user's level of satisfaction with the web application.

4. Result and discussion

4.1 Result of learning Chinese via the web application

Out of the 26 users, who joined the project at the beginning, only 11 users (42.3%) completed the project. Figure 2 shows the distribution of pre-test and post-test scores of the 11 users. Note that the pre-test scores of the other 15 learners who failed to complete all the lessons and did not do the post-test have not been included in the analysis.

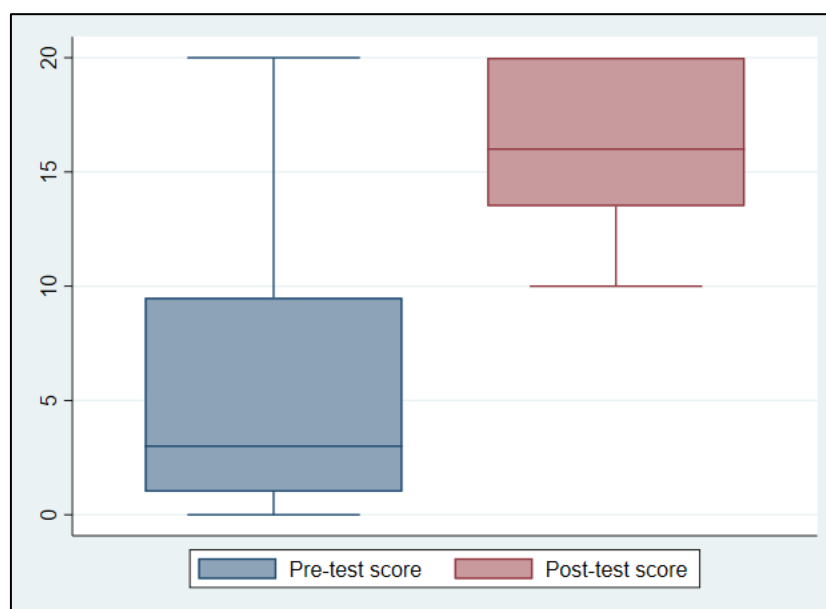


Figure 2 Distribution of pre-test and post-test scores

The two box plots above compare the learning progress of the participants. As can be seen in Figure 2, pre-test scores ranked between 0 and 9 points out of 20. After one month of self-study, the participants obtained between 10-20 points in the post-test. Further, descriptive analysis shows that the pre-test score median was 3 (Interquartile range, IQR: 1, 9.5) whereas the post-test score median was 16 (IQR: 13.5, 20), $p < 0.05$. The results show positive improvements in the development of Chinese language skills in the participants.

Although the results of the statistical analysis clearly show that the participants made significant progress in learning Chinese language using <https://www.chinyhotels.com>, the

percentage of participants who opted out of the study was high at 57.7%. Important factors that contributed to the high rate of opting out were: time constraints, low motivation and technical skills. That is to say, some participants opted out because they did not have time to conduct self-study. Additionally, their motivation was low because they were not offered any benefit, such as rewards or promotions. Even though they realized that Chinese is useful for their work, it was not a language of interest for some participants. Finally, some participants had relatively few technical skills, and whilst this did not prevent them from learning, it presented an affective barrier to overcome.

It is also worth mentioning that some of them had limitations on online access using their mobile phones. Although <https://www.chinyhotels.com> is user friendly, it is a web-based application, and it does not function as well as a mobile application.

Lessons learnt from this pilot project will be taken into consideration for further development of the project, and may also be applicable for other studies. Firstly, it is suggested that management get involved to increase motivation in learners. For instance, the application could be integrated with a staff-training plan where the human resource department sets requirements, rewards, and monitors learner's progress under similar guidelines used with the English proficiency plan. This would encourage learners to pay more attention to their learning and solve the opt out problem in our study. The relatively high percentage of opting out (57.7%) found here, corresponds with Kanoksilpatham's (2012) description of the characteristics of learners in Asia, who tend to be passive in language learning, and as a result, their language proficiency aspirations are not satisfied. Secondly, the web-based application should be fully developed into a mobile application with more features and more lessons for learners to practice. When learners have problems accessing the system or questions about their study, they should be able to communicate with a contact person who can answer their questions and assist them.

4.2 Results of the satisfaction survey

After the pre-test, learners were asked to rate their satisfaction with <https://www.chinyhotels.com>. Ten learners answered the satisfaction survey, which was designed to be an online questionnaire consisting of four parts: language content, application design, usefulness and yes/no questions. The first three parts contained 5-6 questions for the respondents to rate their satisfaction from 1-5 points (1 being the lowest level of satisfaction and 5 being the highest level of satisfaction). The last part consisted of only two yes/no questions. All questions in the questionnaire were in Thai to ensure that the respondents would easily understand,

though posted here in English. Then, the results were translated based on Likert's (1932) psychometric scale where score ranks are interpreted as shown in Table 1 below.

Table 1 Interpretation of Satisfaction Survey

Score rank	Degree of satisfaction
4.21-5.00	Very High
3.41-4.20	High
2.61-3.40	Moderate
1.80-2.60	Low
1.00-1.80	Very Low

Results of the satisfaction survey on the use of <https://www.chinyhotels.com> are presented in Figure 3-5 below.

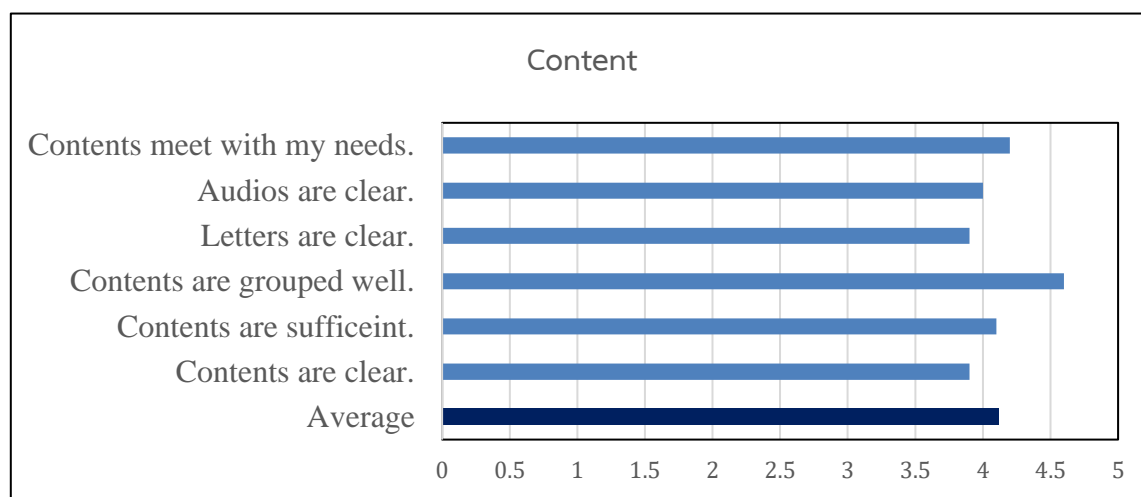


Figure 3 Learners' Satisfaction with the content

Figure 3 shows results of learners' satisfaction with the content that they learnt at <https://www.chinyhotels.com>. As can be seen, learners rated their level of satisfaction with this part at high and very high. The average satisfaction level with the content was high at 4.11.

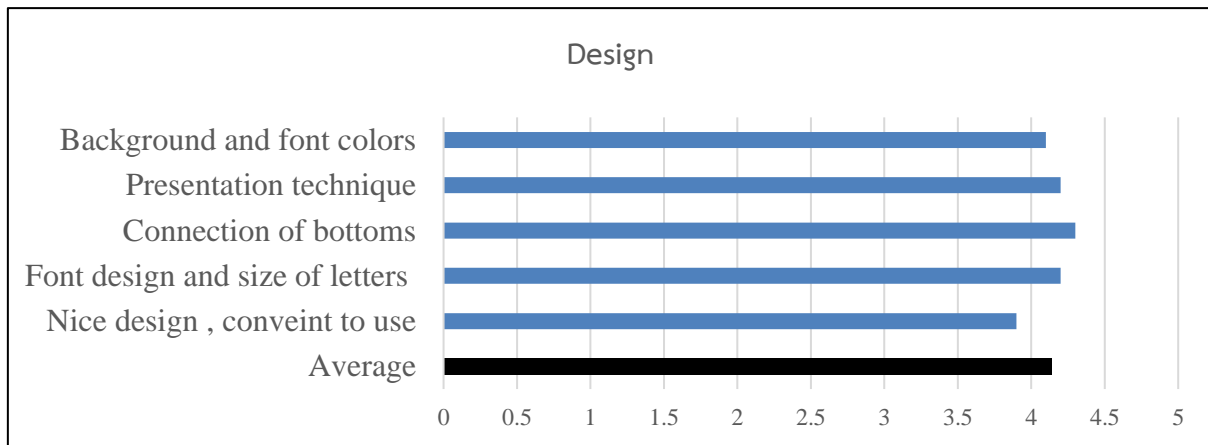


Figure 4 Learners' satisfaction with design

As can be seen in Figure 4, learners rated their satisfaction with the design at high and very high levels, with the average being 4.14 points.

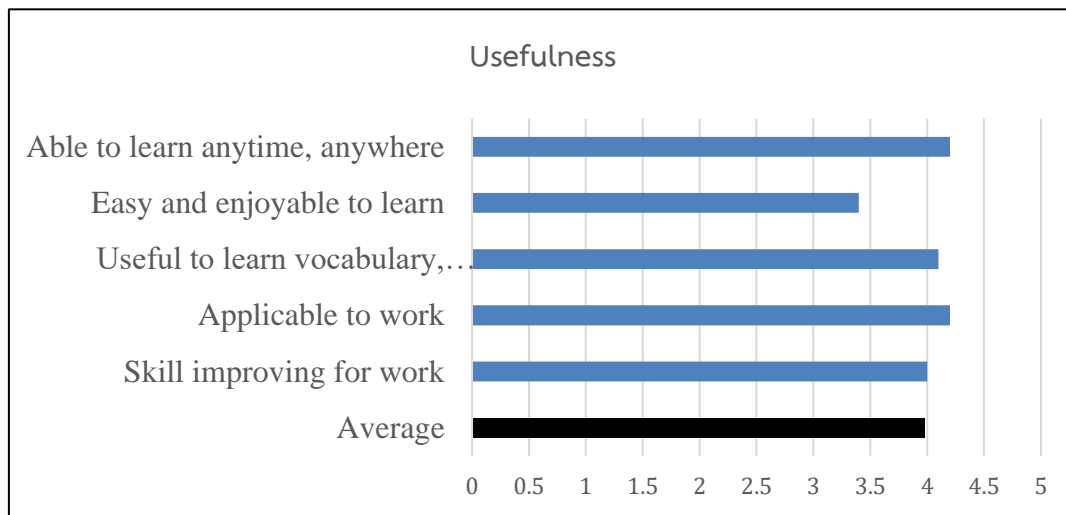


Figure 5 Learners' satisfaction with usefulness

Figure 5 shows the level of satisfaction with the usefulness of <https://www.chinyhotels.com>. The learners rated all questions at a high level, except for 'Easy and enjoyable to learn', which was rated at a moderate level. The overall score for this part was 3.98.

The last part contained two yes/no questions, which were: "Will you recommend this application to your friends/colleagues?" and "Do you want to continue learning Chinese using <https://www.chinyhotels.com>?". All respondents answered 'yes' to both questions.

As can be seen in Figures 3-5, learners were satisfied with the use of <https://www.chinyhotels.com> and would recommend it to their colleagues. Also, they intended to continue learning Chinese language with the application. Results of the satisfaction survey concur with the findings of

previous research, proving that mobile learning is useful in language teaching and learning (Bustillo et.al, 2017, Darmanto & Hermawan, 2016).

The results of the satisfaction survey in our study highlight that usefulness and application of the design are important for encouraging learners to self-study using the mobile learning tool. That is to say, the application needs to be user-friendly; it needs to be easy to use and pleasing to the eye. Crucially, the lessons need to meet the learner's specific purposes for communication, which in this case was conversation for hotel receptionists. With regard to the content, our results confirm Min et.al's (2018) recommendations on employing a communicative syllabus design and a focus group for knowledge management, with content designed by scholars and experienced people in the field.

5. Limitation of the study

In conducting this study, the researchers received the kind cooperation of different sectors. However, we faced two main limitations. The first limitation was the restriction of the study area to Kathu sub-district in Phuket province, where there were only three hotels at that time. Consequently, the number of users in our study was relatively low. The second one was the time constraint that allowed us to only design check-in and check-out lessons for learners to practice.

6. Conclusion

A website <https://www.chinyhotels.com> was designed with the specific purpose to help hotel receptionists better converse with Chinese guests, who represent their main customers. A number of participants joined the project. The participants were given a pre-test. They then self-studied Chinese conversation using the web-based application for approximately one month. A post-test showed a significant improvement in their Chinese language proficiency. However, 57.7% of the participants opted out from the project due to a lack of motivation, time management constraints and a lack of technical skills. Results of the satisfaction survey showed that learners had a high level of satisfaction with their self-study using <https://www.chinyhotels.com>. Our findings correspond with those of previous studies, as outlined in the above literature review in that mobile learning was found to be useful for language learning in terms of its immediacy and specific content. In this case, the content pertained to Chinese language skills useful in the everyday work of receptionists at the hotels under study.

7. Implications

Since this current study was a pilot project, the results can serve as the basis of further development. It is recommended that the application be developed into a full form of mobile application. In addition, more lessons should be included in the application, for example, Chinese for food and beverage staff, housekeeping staff and bell staff. Furthermore, management should become involved in further development. For example, the application could be used to train staff in a way that encourages and motivates them, and evaluates their learning. Lastly, a larger scale project should be conducted with more participants.

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Appendix

Examples of pre-test questions

1. จองห้อง

A. 订单 dìngdān	B. 订房 dìngfáng
C. 空房 kōng fáng	D. 房号 fánghào
2. สัปดาห์ที่แล้ว

A. 上个月 shàng ge yuè	B. 上周 shàngzhōu
C. 中午 zhōngwǔ	D. 一个星期 yí gè xīngqī
3. ชำระเงินสด

A. 签名 qiānmíng	B. 刷卡 shuākǎ
C. 付现金 fù xiànjīn	D. 用信用卡 yòng xìnyòngkǎ
4. บัตรลงทะเบียน

A. 微信支付 wēixìn zhīfù	B. 支付宝 zhīfùbǎo
C. 登记卡 dēngjìkǎ	D. 信用卡 xìnyòngkǎ
5. น้ำแร่ (น้ำดื่ม)

A. 电梯 diàntī	B. 矿泉水 kuàngquánshuǐ
C. 杯子 bēizi	D. 冰箱 bīngxiāng
6. คุณจองห้องแล้วไหม?

A. 您预订房间了吗? Nín yùdìng fángjiān le ma?	B. 您什么时候订房的? Nín shénme shíhòu dìngfáng de?
C. 要住酒店吗? Yào zhù jiǔdiàn ma?	D. 现在有空房吗? Xiànzài yǒu kōng fáng ma?
7. คุณต้องการห้องแบบไหน?

A. 有安静一点的房间吗? Yǒu ānjìng yìdiǎn de fángjiān ma?	B. 您要什么样的房间? Nín yào shénme yàng de fángjiān?
C. 你们酒店有什么样的房间? Nǐmen jiǔdiàn yǒu shénmeyàng de fángjiān?	D. 您要单人间还是双人间? Nín yào dānrénjiān háishì shuāngrénjiān?

8. ไม่มีห้องที่มีอ่างอาบน้ำ

A. 房间里有冰箱。

Fángjiān lǐ yǒu bīngxiāng.

C. 没有带浴缸的房间。

Méiyǒu dài yùgāng de fángjiān.

B. 房间里不能抽烟。

Fángjiān lǐ bùnéng chōuyān.

D. 房间里能上网。

Fángjiān lǐ néng shàngwǎng.

Examples of post-test questions

1. เซ็นชื่อ

A. 签名 qiānmíng

C. 付现金 fù xiànjīn

B. 刷卡 shuākǎ

D. 用信用卡 yòng xìnyòngkǎ

2. คืนห้อง (เช็คเอาท์)

A. 签名 qiānmíng

C. 付现金 fù xiànjīn

B. 办理入住 bànlǐ rùzhù

D. 退房 tuìfáng

3. ค่าห้อง

A. 房费 fángfèi

C. 现金 xiànjīn

B. 服务费 fúwùfèi

D. 押金 yājīn

4. พาสปอร์ต

A. 护照 hùzhào

C. 钥匙 yàoshi

B. 房间号码 fángjiān hàomǎ

D. 房卡 fángkǎ

5. คีย์การ์ด

A. 收据 shōujù

C. 钥匙 yàoshi

B. 行李 xínglǐ

D. 房卡 fángkǎ

6. เล่นอินเทอร์เน็ต

A. 上网 shàngwǎng

C. 抽烟 chōuyān

B. 看电视 kàn diànshì

D. 办理入住 bànlǐ rùzhù

7. ตอนนี้ห้องว่างไหม?

A. 您预订房间了吗?

Nín yùdìng fángjiān le ma?

C. 要住酒店吗?

Yào zhù jiǔdiàn ma?

B. 您什么时候订房的?

Nín shénme shíhòu dìngfáng de?

D. 现在有空房吗?

Xiànzài yǒu kōng fáng ma?

8. คุณต้องการพักกี่วัน?

A. 你们几个人住的?

Nǐmen jǐ ge rén zhù de?

C. 您要住几天?

Nín yào zhù jǐ tiān?

B. 房间在几层?

Fángjiān zài jǐ céng?

D. 早餐多少钱?

Zǎocān duōshǎo qián?