



Review Article

IMPORTANT ELEMENTS FOR A FRAMEWORK IN DESIGNING A MOBILE LEARNING FOR ENGLISH LANGUAGE LISTENING AND SPEAKING SKILLS

Tamil Selvan Subramaniam^{1*}, Melor Md.Yunus², Ahmad Fauzi Mohd Ayub³, Mohd.Shafie Rosli⁴, Siti Zuraida Maaruf⁵, Aliff Nawi⁶, Sarala Thulasi Palpanadan¹

¹Faculty of Technical and Vocational Education, Universiti Tun Hussein Onn Malaysia.

²Faculty of Education, Universiti Kebangsaan Malaysia.

³Faculty of Educational Studies, Universiti Putra Malaysia.

⁴School of Education, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia.

⁵Faculty of Education, Universiti Teknologi Mara.

⁶School of Education, Universiti Utara Malaysia.

*tselvan@uthm.edu.my

Received: 14.02.2020 Revised: 18.03.2020 Accepted: 27.04.2020

Abstract

Based on a literature search, there are a number of mobile learning frameworks mentioned in a previous study that less emphasis on the major element required for English language (listening and speaking skills) specifically for level 2 students. Therefore, this paper aimed to identify the elements that fulfill their needs to be integrated in the mobile learning framework for listening and speaking skills specifically for level 2 students. This study was used quantitative research method through survey using questionnaires as the instrument to get the data and information for answering the research questions. A sample of 30 English expert teachers in the Batu Pahat district was selected based on purposive sampling method to complete the questionnaire survey given. A questionnaire that consists of four constructs was developed and the administered to obtain information. Data was collected and analyzed descriptively using SPSS (Statistical Package for The Social Sciences).. Besides, the validity was made to ensure the questionnaire can be used. Content validity, face validity and construct validity were used in this study to make sure the instrument's validity. Moreover, the pilot study was carried out to obtain the reliability of the questionnaire. Based on the analysis that has been made, Alpha Cronbach value was 0.87 categorized as a high level. Findings showed that there was an audio, graphics and text elements must be integrated into the mobile learning framework and audio elements help in listening skills while text elements help English speaking skills as well as other elements such as learning anywhere and anytime, easy to use, navigation, other resources for related information are provided, directory and help button. The findings of this study can be used by mobile learning designers as a guide in preparing for learning material and the main contribution of this study is an important element for a framework in designing a mobile learning for english language listening and speaking skills.

Key words: English Learning, m-learning, Learning Framework.

@ 2019 by Advance Scientific Research. This is an open-access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/) DOI: http://dx.doi.org/10.31838/jcr.07.06.54

INTRODUCTION

Mobile learning trends are becoming an option of mobile device users. Through the statistics shown by Gartner (2014), the number of mobile app downloads is expected to increase by 268 billion in 2017. This shows that students start selecting mobile learning because they walk in a more relaxed and relaxed environment as users have the opportunity to use them without any time constraints and places (Attewell & Savill-Smith, 2004). The study of Mobile-assisted Language Learning (MALL) shows that learning English as a second language can be done freely through mobile learning (Chinnery, 2006). The problem of the study is that there is still no framework to guide the design of mobile learning that fulfill their needs of Level 2 students for listening and speaking skills (Supyan et al, 2012). Based on the preliminary results of the English teachers, it shows that they have no information on selecting suitable applications as student supported learning materials in English listening and speaking skills. In addition, they have limited knowledge about specific elements that fulfill their needs into mobile learning that meet the needs of Level 2 students in English listening and speaking skills, elements that can help Level 2 students in English listening and speaking skills and content of mobile learning packages can help Level 2 students in the mastery of English listening and speaking skills.

Therefore, this study was conducted to determine the learning package that meets the needs of Level 2 students in listening and speaking skills. In addition, this study also needs to be conducted to identify the main elements must be integrated into mobile learning that meet the needs of Level 2 students in

English listening and speaking skills, element content that can help Level 2 students in listening and speaking English skills and content mobile learning packages can help Level 2 students in mastery of listening and speaking skills in English. Finally, researchers have proposed a framework for designing mobile learning packages for listening and speaking skills in English.

METHODOLOGY

The research methodology is determined by the design of the study through a survey. This study was used quantitative research method through survey using questionnaires as the instrument to get the data and information for answering the research questions. The questionnaire was used as a research instrument to examine the important elements fulfill their needs to be integrated in the mobile learning. The survey method was selected as the basis of unbiased approach to the decision making process. A scholar like Cohen, Manion and Morrison (2017) also stated that the survey is comprehensive in nature, which may comment on the issue from various points of views, how easy handling can accumulate and collect data quickly, corresponding to the large sample size, the information obtained directly and able to make decisions collectively. The population in this study was 30 English expert teachers from the Batu Pahat district. The sample used was purposive sampling. This is because the purposive sampling is judgmental, selective, or subjective sampling to get meaningful data for this study. It is used to focus on the particular characteristic of a population, which is the teacher's background. Besides, in this study, the validity was made to ensure the questionnaire can be used. Content validity, face

validity and construct validity were used in this study to make sure the instrument's validity. Moreover, the pilot study was carried out to obtain the reliability of the questionnaire. Based on the analysis that has been made, Alpha Cronbach value was 0.87 categorized as a high level.

1) Instrument of study

The instrument used in this study was questionnaires. The questionnaire consists of 4 parts which are Part A, B,C1 and C2. Part A is the respondent demographic information. For Part B, C1 and C2 contain the components of respondents' to the element that need to integrate. A total of three constructs was developed such as important elements fulfill their needs in the mobile learning, element that help to meet the needs of students in acquiring English listening skills, elements help to meet the needs of students in the mastery of English speaking skills. Each of the construct consists of tenth items that need as the measurements. In addition, this study, data obtained from the questionnaire were analysed using SPSS Statistics 18.0. Element needs among respondents is measured based on the mean score interpretation as shown in Table 1.

Table 1: Mean score interpretation

Tubic 11 Ficult Score interpretation			
Inclined Level	Mean Score Range		
Low	1.00 - 2.33		
Medium	2.34 - 3.67		
High	3.68 - 5.00		

2) Data Analysis

Descriptive statistics in the form of averages and percentage distributions described the teachers were explored for Part A in the questionnaire. Part B and Part C, the descriptive statistics the mean and standard deviation table. For example, in this paper, the independent variable that meet this criterion the readiness level (high, medium and low).

RESULTS

1) Element that fulfills their needs in designing the mobile learning

This section presents an analysis of the study about the multimedia element that fulfill their needs in designing the mobile learning to meet the needs of Level 2 students in listening and speaking skills. Based on table 2 data analysis shows the audio and graphic elements need to be integrated into mobile learning packages for listening and speaking skills in English as well as other elements such as can be started and terminated at any party and anytime, easy to use without the help of others, hyperlinks and navigation work well, other sources for relevant information are provided, text elements, directories and help buttons are provided.

Table 2: Results of respondents' responses to elements in mobile learning packages

mobile lear ming pa			
Item	Mean	Interpretation	
Audio	4.98	High	
Graphic	4.98	High	
Its use can be started in any part.	4.90	High	
Users may terminate use at any	4.83	High	
time.			
Mobile Learning is easy to explore	4.80	High	
Access (hyperlinks) works.	4.77	High	
The navigation buttons work well.	4.70	High	
Other resources for relevant	4.57	High	
information are provided.			
Text	4.42	High	
Directory available (list of landing-	3.73	High	
button content)			
Help button (HELP) is available.	2.53	Medium	

2) Element that helps to meet the needs of students in acquiring English listening skills

This section presents an analysis of the study about element helps to meet the needs of Level 2 students in acquiring English listening skills. From the analysis, the mean score range indicates the range of all items studied between 1.33 and 5.00. Based on table 3 data analysis shows that most of the elements help English Listening skills and need to be integrated into mobile learning packages for listening and speaking skills in English.

Table 3: Results of respondents to element that help English listening skills.

English listening skins.							
Item	Mean	Std.	Interpretation				
		Deviation					
It encourages students	4.93	0.254	High				
to listen carefully.							
It encourages students	4.97	0.183	High				
to understand what							
they hear.							
It promotes responsive	4.97	0.183	High				
to audio.							
It involves the mind	4.97	0.183	High				
process.							
It encourages students	4.90	0.305	High				
to get the meaning of							
the messages they							
hear.							
It encourages students	4.97	0.183	High				
to improve their ability							
in terms of better use							
of the Language.							
The text helps in	4.97	0.183	High				
mastering listening							
skills.			_				
Videos help in	1.33	0.479	Medium				
listening skills.							
Audio helps in	5.00	0.000	High				
listening skills.							
The graphics help in	4.93	0.254	High				
listening skills.							
Animation helps in	1.33	0.479	Medium				
listening skills.							
Average overall mean	4.29	High					

3) Elements help to meet the needs of students in the mastery of English speaking skills

This section will present the analysis of the study about elements help to meet the needs of Level 2 students in the mastery of English speaking skills. From the analysis, the mean score range for all items studied was between 2.83 and 4.93. Table 4 shows elements that help meet the needs of Level 2 students in mastering English speaking skills. Based on the mean score, the average mean of the element that helps meet the needs of Level 2 students in English speaking proficiency is 4.45. Table 4 also shows items that are "Text helps in mastering spoken skills" record the highest mean score of 4.93 while the lowest mean score of 2.83 is recorded for item namely "Animation helps in speaking skills". The highest spoken skill that can be mastered with the help of a text element is "It encourages students to pronounce the correct tone (sound pressure)", "It encourages students to call with the correct pause or tricks" and "It encourages students to brainstorm with using the appropriate language "recorded the highest mean score of 4.93. While the item "It encourages students to pronounce with the right intonation" to record the lowest mean score for the ability to speak the ability to speak

Table 4: Results of respondents to element that help English speaking skills

Item	Mean	Std. Deviation	Interpretation
It encourages students to cite the correct intonation.	4.90	0.305	High
It encourages students to speak with the correct tone (sound			High
pressure).	4.93	0.254	
It can encourage students to call with the correct pauses or			High
tricks.	4.93	0.254	
It can encourage students to brainstorm by using the	4.93	0.254	High
appropriate language.			
The text helps in mastering speaking skills.	4.93	0.254	High
Videos help in speaking skills.	2.87	0.346	Medium
Audio helps in speaking skills.	4.90	0.305	High
The graphics help in speaking skills.	4.87	0.346	High
Animation helps in speaking skills.	2.83	0.379	Medium
Average overall mean	4.45	High	

DISCUSSIONS

In this section, the discussion of the findings was conducted in detail and thorough by the researcher to see whether the question of this study was achieved.

1) Elements that need to be integrated into mobile learning packages for listening and speaking English skills

Based on the analysis of the study, the overall findings show that graphics, audio and text as a main element for designing mobile learning that fulfills their needs of Level 2 students for listening and speaking skills in designing mobile application. However, the study found that video and animation elements recorded lower mean scores of 2.10 and 1.90. This is because, according to the third principle of multimedia (Mayer, 2003) the cohesive principle of the use of words, graphics, audio, or visuals that are not relevant to the material that should be communicated should be avoided. This is because users need to be exposed to the main information relevance clearly without interfering with irrelevant material. Consumers will be encouraged to focus on the main information only without interruption by unimportant information (Mayer 2001, 2008). As a result, delivery of information will be more effective as it only displays learning content.

An active audience will focus intensively on what the speaker is saying and at the same time be able to analyze thousands of information. The study (Zhang, 2005), notes that the effects of multimedia use of learning are not necessarily effective and The study conducted (Rezaei, Mai, & Pesaranghader, 2013), stated that there are students who have the ability to receive better information through brain stimulation processes compared to the visual senses and some students receive better information through stimuli compared to a combination of sense of sight and hearing. In conclusion, the study found that graphics, audio, and text as a main elements need to be consider in designing mobile learning for listening and speaking skills in English as well as other elements such as their use can be started in any part of the user can end use at any time, mobile learning are easy to explore without the help of others, hypertext and hyperlink work well, navigational buttons work well, other resources for relevant information are provided, directories are provided and help buttons are provided.

2) Element helps to meet the needs of students in acquiring English listening skills

According to the analysis, respondents agree that the use of mobile learning is fun. Respondents think so because they may not be bound to do learning activities because learning can take place everywhere and there is no time limit. The results of this study were also supported by Kukulska-Hulme (2005) where mobile learning was a new concept introduced in the teaching and learning process. In addition, respondents also agree that they have the knowledge and experience in using previous mobile learning. As such, mobile learning is not a stranger to respondents. The study was also supported by Huang (2004) in his study where the concept of learning was a

result of one's experience and behavior based on the processing of thoughts on the stimuli around them. The intended stimuli can occur in the form of elements such as sound elements, colors, shapes and also the combination of these elements. Respondents also argue that through mobile learning, it can provide more flexible learning time. This is because today's learning can not only happen in the classroom, but also occurs anywhere by using mobile technology.

This study was also supported by Vavoula (2005) where learning occurs daily for adults covering 51% of the learning episodes occurring in a normal environment at home or workplace. In addition, respondents also give their views that using mobile learning can improve their productivity. This is because students can get the latest information more easily and quickly. This statement is also supported by Idrus and Buntat (2008), where the main focus of mobile learning is students. The mobile learning environment will also make the students more independent and more active in their learning. Additionally, students need not be ashamed to repeat the same title to achieve flexible and less stressful levels as it can be done anywhere as long as there is a mobile device and internet. With the use of mobile learning, it is also easy for students to easily revisit the lessons learned.

3) Elements that help meet the needs of students in the mastery of English listening skills

Based on the analysis, as a whole, the audio element that helps meet the needs of Level 2 students in the mastery of English listening skills is at a high level. This means that the sound and sound effects that are appropriate, clear, bright, smooth and attractive can enhance the mastery of Level 2 students in English listening skills. Additionally, audio and video that work together also enhance the mastery of the students in the skills. According to the analysis, the highest listening skills that can be mastered with the help of audio, text and graphic elements are to encourage students to understand what they hear, promote audio responses, engage in mind processes and encourage students to improve their ability to use the language better. According to (Claire, Klein, & Koroghlanian, 2004), audio can eliminate the feeling of being awkward and as if the user is communicating with other humans and not with the machine. This study was also supported by (Mayer, 2004), the involvement of two modes is better than one mode alone. Dual mode engagement is able to provide diverse information and facilitates the preparation of information in memory. However, the amount of information should be appropriate in order not to be too dense at all times (Leow & Neo, 2014).

The study was also supported by Huang (2004) in his study where the concept of learning was a result of one's experience and behavior based on the processing of thoughts on the stimuli around them. The intended stimuli can occur in the form of elements such as sound elements, colors, shapes and also the combination of these elements. Respondents also argue that through mobile learning, it can provide more

flexible learning time. This is because today's learning can not only happen in the classroom, but also occurs anywhere by using mobile technology. In conclusion, audio elements are identified as the most helpful elements of Level 2 students in English listening skills in using mobile learning packages. Among the skills being mastered is understanding what is being heard, responding to audio, involving the mind process and encouraging students to improve their ability to use the language better.

4) Framework proposes for designing a mobile learning package for English Language Learning (listening and speaking skills)

Framework lists the multimedia elements that fulfills their needs to be integrated in the mobile learning to meet the needs of Level 2 students in listening and speaking English skills The form of the Mobile Learning Package for English learning (skills and speech) is audio, graphics and text. In addition to the three elements, the analysis finds other elements such as users can start and end anywhere and anytime, easy used without the help of others, have hyperlinks, have navigation and there are other resources available for relevant information, needed in the framework of creating a Mobile Learning Package for English learning (listening and speaking skills).

From this framework, the audio element is the highest in helping English listening skills such as encouraging students to understand what they hear, promoting audio responses, involving the mind process, encouraging students to improve their ability in terms of better use of Language, encourage students to listen carefully and encourage student to get the meaning of the messages they hear. Skillful speaking skills are to encourage the students to pronounce the correct tone (sound pressure), encourage the pupil to call with the correct pause or tricks, encouraging students brainstorm using appropriate language and encourage students to pronounce with the correct intonation. In conclusion, with this framework, elements that fulfills their needs have been identified and integrated within the mobile learning for listening and speaking skills. Additionally, the most helpful elements of listening and speaking skills have also been identified.

CONCLUSION AND FUTURE RESEARCH DIRECTIONS

In conclusion, the results obtained by the researcher showed that the researcher succeeded in achieving the objectives of the study. Overall, audio, graphics and text elements need to be integrated in mobile learning for listening and speaking skills. Other elements should also be added to meet the needs of Level 2 students for listening and speaking English skills. There are several suggestions that can be used by other researcher for future researchers first conduct studies of student using the proposed mobile learning packages to see the mastery of listening and speaking skills in English and design a mobile learning software for listening and speaking skills using a pre-designed framework.

ACKNOWLEDGEMENT

This paper was partially supported by the Research Management Centre, Universiti Tun Hussein Onn Malaysia, under the Research Fund (E15501).

REFERENCES

- Attewell, J. & Savill-Smith, C. (2004). Learning with mobile devices: research and development – a book of papers. London: Learning and Skills Development Agency.
- Azadeh Rezaei, Neo Mai, Ahmad Pesaranghader (2014).
 The Effect of Mobile Applications on English Vocabulary Acquisition. Jurnal Teknologi 68(2):73–83
- 3. Cover, T. M., & Thomas, J. A. (2005). Elements of Information Theory. Elements of Information Theory.
- Chinnery, M. G. (2006). Emerging Technologies Going to the MALL: Mobile Assisted Language Learning. Language Learning & Technology, 10 (1), 9-1
- Cohen, L., Manion, L., & Morrison, K. (2017). Research Methods in Education. (8th ed.). Routledge.
- Gartner (2014): Mobile App Downloads To Exceed 268
 Billion, https://www.telecompetitor.com/gartner-mobile-app-downloads-exceed-268-billion/
- Huang, Y. (2014). Empirical Analysis on Factors Impacting Mobile Learning Acceptance in Higher Engineering Education.
- 8. Idrus, W. & Buntat, Y. (2008) Aplikasi M-Learning dalam pengajaran dan pembelajaran di sekolah-sekolah Malaysia: isu dan cadangan perlaksanaannya. Fakulti Pendidikan Universiti Teknologi Malaysia. Dicapai pada Mei 1, 2013 dari http://kajianberasaskansekolah.files.wonderpress.com/2008/03/m-learning.pdf
- Kukulska-Hulme, A., & Traxler, J. (2005). Mobile Learning: A Handbook For Educators And Trainers. Mobile Learning: A Handbook for Educators and Trainers.
- Mayer, R. E., (2003). Elements of a science of e-learning. Journal of Educational Computing Research, 29(3), 297-313
- Mayer. (2001). Multimedia learning. Cambridge; New York: Cambridge University Press
- Mayer, R. (2008). Applying the science of learning: Evidence-based principles for the design of multimedia instruction. American Psychologist, 63(8), 760-769.
- Supyan, H., Manap, M. R., Amir, Z., & Krish, P. (2012).
 Mobile learning readiness among Malaysian students at higher learning institutes. Asian Social Science, 8(12), 276.
- Vavoula, G., (2005) A Study of Mobile Learning Practices, Internal Report, Deliverable 4.4 for the MOBIlearn project (IST-2001-37440)
- Zhang, D. 2005. Interactive multimedia-based e-learning: A study of effectiveness. American Journal of Distance Education 19 (3):149–62.