

Design Principles of Mobile Learning Module to Enhance English for Academic Survival Skills

Nurizah Md. Ngadiran^{1*}

¹Centre for Language Studies,
Universiti Tun Hussein Onn Malaysia, Parit Raja, 86400, MALAYSIA

*Corresponding Author Designation

DOI: <https://doi.org/10.30880/ahcs.2023.03.02.004>
Received 10 July 2023; Accepted 10 August 2023; Available online 15 October 2023

Abstract: ‘Tutor Me’ was developed to assist low proficiency ESL learners who enrol in UHB 10302 course (English for Academic Survival) in Universiti Tun Hussein Onn Malaysia (UTHM) to develop their English for academic survival skills, which include effective reading, effective listening, paragraph writing and presentation skills. It is crucial for the targeted students to be assisted with a comprehensive module to be used during tutorial sessions and Independent Study Hours (ISH) sessions. As for Phase Two (Design and Development), one of the objectives is to construct the mLearning module design principles. The implication of this study focuses on the development of design principles to develop mLearning module to enhance English for academic survival skills.

Keywords: Self-Directed Learning, English For Academic Survival Skills, Mlearning Module, Design Principles.

1. Introduction

Several studies in Malaysia looked at how technology was used by undergraduate students for self-directed learning. Nasir and Ismail (2016) conducted one of the research, which looked into the readiness of ESL students for a newly created blended learning English language competency course offered by the Academy of Language Studies (ALS), Universiti Teknologi MARA (UiTM). Based on a conceptual framework created through the integration of staged self-directed learning, Ali et al. (2017) investigated ways that online forums could encourage self-directed learning among Malaysian tertiary students. In contrast, Abdullah et al. (2018) investigated the use of computer-supported collaborative learning (CSCL), which encourages ESL students to develop greater self-confidence and become independent learners while also expanding their knowledge and general information through electronic feedback from peers and teachers.

A set of design principles for building mLearning for self-directed learning to improve English for academic survival skills among the targeted students is urgently needed after analyzing the potential to encourage self-directed learning via the use of technology. In order to better understand the fundamental requirements of ESL professors and students with reference to the mLearning module, this research was

conducted. In addition, the research was done to determine how the mLearning module was designed and to look at the lecturers' and students' perspectives as mLearning module users. The effectiveness of the mLearning module in improving the pupils' English language proficiency for academic survival was also examined. Based on design and development research, therefore, this research is considered as a study for ESL learning research, which focuses on self-directed learning and the development of English course learning materials.

The goal of this study is to produce a set of design principles that will be used in the creation of the mLearning module. These design principles will be based on the chosen learning theories, language learning theories, and empirical studies.

2. Materials and Methods

The design and content of 'Tutor Me' are defined in Phase Two (Design and Development Phase) based on design principles based on selected learning theories (the Social-Constructivist Theory and the Scaffolding Theory), language learning theory (the Interaction Hypothesis), and mLearning principles (Universal Instructional Design Principles of mLearning) and module development model (Sidek's Module Development Model).

3. Results and Discussion

After reviewing the theories, the principles, and the model highlighted, the researcher outlined the design principles of the mLearning module for self-directed learning to enhance English for academic survival skills. The design principles are as follows:

3.1 Stimulates Collaboration between Learners

In relation to the context of socially constructed learning, a more competent language learner can learn independently via self-regulation. On the contrary, according to Boukezzoula (2016), not-so-competent learners will learn to accomplish a task under the guidance of others. Hence, the use of the mLearning module during tutorial sessions and ISH of the course is in-line with one of the primary concepts of the Scaffolding theory, which is Zone of Proximal Development (ZPD).

The ZPD lies within the range between the actual development of learners in their oral presentation skills and the level of potential development that is too difficult for the learners to master alone but can be attained through guidance or collaboration with more capable others (Thompson, 2013; Pulverness, 2017). Through the use of the mLearning module, less competent students should be able to seek assistance from their lecturers and more competent students when faced with difficulties in completing certain tasks given. The more knowledgeable students and lecturers should be able to offer feedback when students seek help to comprehend the tasks through the communication platform made available in the mLearning module. Thus, they should be able to gain responses regardless of time and place and need not wait until the following class to personally seek clarification from their lecturers.

3.2 Provides Scaffolding Environment

Simultaneously, the mLearning module embeds three types of scaffolding techniques, namely, expert scaffolding, self-scaffolding and technical scaffolding. Expert scaffolding is when the lecturers are denoted as experts and are responsible in providing scaffolds to the students, for instance, by uploading information pertaining to the topics relevant to English for academic survival skills in the mLearning module. By doing so, direct assistance is given to these students in accomplishing the given tasks, which would lead to higher level of thinking. Gradually, the students would begin gaining independence in their learning. Meanwhile, in self-scaffolding, the students should be able to learn through self-reflection, whereby they are responsible in evaluating their ZPD using scaffolds made available in the mLearning module. As for technical scaffolding, the More Knowledgeable Others

would be able to give guidance and feedback using their mobile technology devices to the targeted students, irrespective of their location and time.

3.3 Supports Contented Language Learning Environment

As for the mLearning module itself, it promotes a comfortable learning setting for the students to acquire knowledge on language skills. This is because the mLearning platform should provide a learning platform for the students to practise their language skills several times, especially during tutorial sessions and ISH. Since ESL students are usually nervous and uneasy during assessments conducted in classrooms (Di Loreto & McDonough, 2014; Grant, 2016), the mLearning module can reduce the level of apprehension among the students through the encouragement offered by lecturers and learners who also use the mLearning module.

3.4 Promotes Interaction between the Learners

Several language learning activities have been listed in the Interaction Hypothesis, including group work and discussions. These activities can encourage the students to interact with their course mates actively and negotiate meaning. Through effective interactions, these students will request clarification and obtain Comprehensible Input. Simultaneously, students should be able to produce output. Besides, language acquisition is fostered with interaction via discussion forum made available in the mLearning module. Based on this hypothesis, when the process of learning and teaching the second language is not dominated by the educators or lecturers, there are ample opportunities for interaction and language acquisition to take place among these students.

3.5 Offers Reachable mLearning Platform for Self-Directed Learning

Ideally, the mLearning platform should be made accessible to the students with varying abilities and to those from differing venues to cater to self-directed learning. Hence, the content and the assignments should be made retrievable on multiple mLearning devices. In regard to this study, the researcher developed the mLearning using WP LMS. WP LMS refers to LMS for WordPress, which is deemed suitable for higher learning institutions. One of the features made available in WP LMS is cloud storage and sharing that can be accessed via smartphones and laptops, which is an important element in self-directed learning via mLearning. Therefore, by having this element, the students should be able to save relevant information uploaded by the lecturers of the course, especially on topics that they do not fully understand.

3.6 Upholds Agility of mLearning Platform

For this principle, the mLearning platform should be able to cater to a variety of (1) individual abilities, (2) preferences, (3) schedules, (4) levels of connectivity, and (5) choices in methods of use. Hence, an inclusive mLearning platform should provide choices on how the materials should be used. The mLearning module should have the capacity to accommodate these elements. The students can access and complete the tasks provided based on their capabilities, likings, timetables, levels of connectivity, and the devices that they would like to use in accessing the mLearning module.

3.7 Presents Easy and Intuitive Design of mLearning Platform

In designing the mLearning platform, needless complication should be avoided, while the layout should be simple and intuitive. Elias (2011) stated that when it comes to developing and selecting existing sites for use, a developer should use open sites and software programmes. This helps to guarantee that the students have constant access to the resources at a low cost. In the context of this study, as previously mentioned, the mLearning module was designed by using WP LMS. Although the WP LMS was commercially developed by WordPress, it has been considered as one of the most popular free LMS development platforms (Makara, 2017). At the same time, the developer who uses WP LMS is given the option to offer his or her online courses via WP LMS for free. After reviewing these

characteristics, the researcher had decided to develop the mLearning module using WP LMS to ascertain continuous use of the mLearning module among students and lecturers to learn and teach English for academic survival skills.

3.8 Tolerates Errors and Mistakes

Discussing on the relationship between tolerance for errors and the mLearning module, prior to the use of the module, the researcher conducted a training session with the lecturers and students who were about to use the mLearning module during the tutorial sessions and ISH. The researcher, who is also the developer of ‘Tutor Me’, had also attached a user’s manual to serve as a reference. In addition, should the users face any technical difficulties while using the mLearning platform, they should be able to contact the researcher via phone and e-mail, aside from meeting the researcher personally at her office, as contact details were also provided in the platform. Moreover, the students can edit their posts in the discussion forums made available in the mLearning module. Sometimes, the students may note a mistake made after uploading their responses in the discussion forums. Referring to this principle, it is crucial to permit the students to make amendments to their mistakes. This is to boost the students’ level of confidence to continuously use the mLearning module in the process of comprehending English for academic survival skills.

3.9 Demands Low Physical and Technical Struggle in Using the mLearning Platform

By taking this principle into attention, the researcher had embedded link from YouTube videos into ‘Tutor Me’. The students could click on the links to gain further clarifications on the topics highlighted in UHB 10302. As such, they need not log out from the module and log into YouTube to search for the videos by themselves. Therefore, they should be able to retain their attention span in using the mLearning module and complete the tasks assigned to them.

At the same time, the users do not have to rely on external technologies to complete the tasks in the mLearning platform. The completion process should be time saving because most exercises could be accomplished in the mLearning module. The students should not have to convert their answers into word-processing software (such as Microsoft Word) and upload their answers in the mLearning module, which might reduce their level of motivation to complete their tasks.

The following table summarises ‘Tutor Me’ design principles:

Table 1: ‘Tutor Me’ design principles

| Design Principles | Elaboration | Theory / Model / Principles |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Stipulates collaboration between learners | Less competent students able to seek assistance from their lecturers and more competent students when faced with difficulties in completing certain tasks given. More knowledgeable students and lecturers able to offer feedback when students seek help to comprehend the tasks through the communication platform made available in the mLearning module. Less competent students able to gain responses regardless of time and place. | The Scaffolding Theory UID Principles of mLearning |
| Provides scaffolding environment | Embeds three types of scaffolding techniques; expert scaffolding, self-scaffolding and technical scaffolding. Expert scaffolding – lecturers as experts, responsible to upload information, and direct assistance is given to students to accomplish tasks. Self-scaffolding – the students learn through self-reflection. | The Scaffolding Theory UID Principles of mLearning |

| | | |
|-----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| | Technical scaffolding – the MKOs give feedback using mobile technology devices to the targeted students. | |
| Supports contented language learning environment | Promotes a comfortable learning setting for UHB 10302 students to acquire knowledge on language skills. Provides a learning platform for the students to practise their language skills a number of times, especially during tutorial sessions and IS hours. Reduce the level of apprehension among UHB 10302 students through the encouragement offered by lecturers and learners who also use ‘Tutor Me’. | The Scaffolding Theory UID Principles of mLearning |
| Promotes interaction between learners | Able to produce output with interaction via discussion forum available in ‘Tutor Me’. | The Social - Constructivist Theory The Interaction Hypothesis |
| Offers reachable mLearning platform for SDL | Retrievable content on multiple mLearning devices. Developed using WP LMS – have suitable features to be used by higher learning institution students. | UID Principles of mLearning |
| Upholds agility of mLearning platform | Cater to individual abilities, preferences, schedules, levels of connectivity, and choices in methods of use. | UID Principles of mLearning |
| Presents easy and intuitive design | Simple layout. ‘Tutor Me’ via WP LMS – open site, low-cost (free access). | UID Principles of mLearning |
| Tolerates errors and mistakes | Conducted a training session with the lecturers and students of UHB 10302. Attached a user’s manual as a reference. Able to contact the researcher via phone and e-mail, aside from meeting the researcher personally. Able to edit their posts in the discussion forums in ‘Tutor Me’. Crucial to permit the students to make amendments to their mistakes - boost the students’ level of confidence. | The Scaffolding Theory UID Principles of mLearning |
| Demands low physical and technical struggle in using the mLearning platform | Able to retain the students’ attention span in using ‘Tutor Me’ and complete the tasks. | UID Principles of mLearning |

Acknowledgement

The authors would also like to thank the Centre for Language Studies and Centre for General Studies and Co-curricular, Universiti Tun Hussein Onn Malaysia for their support.

References

- Ali, M. F., Tahir, L. M., Said, M. N. H. M., Junaidi, J., Atan, N. A., & Hahsan, A. (2017). Promoting staged self-directed learning (SSDL) among Malaysian tertiary learners through online discussion in completing group assignment. *In Teaching, Assessment, and Learning for Engineering (TALE), 2017 IEEE 6th International Conference* (pp. 265-270).
- Abdullah, M. Y., Hussin, S., & Shakir, M. (2018). The effect of peers' and teacher's e-feedback on writing anxiety level through CMC applications. *International Journal of Emerging Technologies in Learning (IJET)*, 13(11), 196-207.
- Boukezzoula, M. (2016). Bridging the gap between the writing course and the content modules through the genre-based approach. (Doctoral dissertation, University des Freres Mentouri, Constantine).
- Di Loreto, S., & McDonough, K. (2014). The relationship between instructor feedback and ESL student anxiety. *TESL Canada Journal*, 31(1), 20.
- Elias, T. (2011). Universal instructional design principles for mobile learning. *The International Review of Research in Open and Distributed Learning*, 12(2), 143-156.
- Grant, A. D. (2016). An ESL Instructor's Guidebook for Reducing Test Anxiety at the Community College Level Through Exploring Alternatives in Assessment.
- Makara, S. (2017). Open School Cambodia: Open Web-based E-learning Platform for Khmer-Speaking Users.
- Nasir, N. F. W. M., & Ismail, I. S. (2016). Student readiness of a newly-designed blended learning English language proficiency course in UiTM. *In 7th International Conference on University Learning and Teaching (InCULT 2014) Proceedings* (pp. 777-788). Springer, Singapore.
- Pulverness, A. (2017). Squaring the circle: Teaching EAP to large mixed groups. *The English Teacher*, 19.
- Thompson, I. (2013). The mediation of learning in the zone of proximal development through a co-constructed writing activity. *Research in the Teaching of English*, 247-276.