



e-Learning & Interactive Lecture: SoTL Case Studies in Malaysian HEIs

Editor:
Mohamed Amin Embi

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Cetakan Pertama/ *First Printing*, 2015

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Diterbitkan di Malaysia oleh/ *published in Malaysia by*
Pusat Pengajaran & Teknologi Pembelajaran
Universiti Kebangsaan Malaysia
43600 UKM Bangi, Selangor. Malaysia

Perpustakaan Negara Malaysia

Data-Pengkatalogan-dalam-Penerbitan/
Cataloguing-in-Publication Data

e-Learning & Interactive Lecture: SoTL Case Studies in Malaysian HEIs edited by:
Mohamed Amin Embi

ISBN 978-983-3168-48-4

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Preface



Prof. Dr. Mohd Majid Konting

Assalamualaikum wbt

Scholarship of Teaching and Learning or SoTL is one of AKEPT's agenda so that Malaysian HEI lecturers' can be transformed into 'Reflective Practitioners'. This way, they can reflect on the approaches and methods they use to enhance learning. Due to crucial role of SoTL in promoting effective pedagogy, it is important for AKEPT's trainers to be actively involved in SoTL and share their SoTL findings with others. Accordingly, the whole community will be updated and benefited with latest findings and technologies useful for promoting innovative teaching and learning.

This publication is timely, in fact, the first of the 'SoTL Symposium Publication Series', hence, it can be considered a ground-breaking work in this field. I sincerely hope that more title in this series can be produced in the near future.

Lastly, I would like to take this opportunity to congratulate Prof. Dr. Mohamed Amin Embi from Universiti Kebangsaan, as the Head of the Training of Trainers Module for e-Learning and Interactive Lecture, for initiating and editing this book. I also would like to express my gratitude and appreciation to all the authors for their contributions making the publication of this book a reality.

Prof. Dr. Mohd Majid Konting,
Director, Higher Education Leadership Academic

Preface



Assoc. Prof. Dr. Ismi Arif Ismail

Assalamualaikum wbt and Salam 1Malaysia,

With the perspective of fulfilling vision 2020, this centre has a special focus on the promotion of teaching and learning leadership in Malaysian institutions of higher education. The Centre for Leadership in Learning and Teaching has developed more than 15 Training of Trainers modules to enhance learning and teaching in Malaysian HEIs. Two of these modules are on i) e-Learning, and ii) Interactive Lecture headed by Prof. Dr. Mohamed Amin Embi from Universiti Kebangsaan Malaysia.

Firstly, I would like to take this opportunity to congratulate Prof. Dr. Mohamed Amin and his team for successfully organizing the 1st Scholarship of Teaching and Learning (SoTL) Symposium on e-Learning and Interactive Lecture on 19th to 20th August 2014. At the same time, I would also like to extend my appreciation for his proactive endeavour initiating this inaugural SoTL Symposium Publication Series. Hopefully, such great work would expand the knowledge of SoTL in facilitating Malaysian HEIs lecturers to adopt innovative teaching and learning strategies in their classrooms. Finally, I would like to thank and congratulate all the authors for their contributions in making the publication of this book a success.

Assoc. Prof. Dr. Ismi Arif Ismail

Deputy Director, Centre for Leadership in Learning & Teaching, AKEPT

Preface



Prof. Dr. Mohamed Amin Embi

Assalamualaikum wbt and Salam 1Malaysia

One way to transform teaching and learning in Malaysian higher education of institutions is by developing reflective practitioners via evidence-based teaching. In this context, the Scholarship of Teaching and Learning (SoTL) is an important platform for this transformation at AKEPT and Ministry of Education. To achieve this end, three Scholarship of Teaching and Learning Symposiums have been successfully organized. The first was held at AKEPT in August 2014. The second and the third were held at Universiti Kebangsaan Malaysia in December 2014 and May 2015 respectively. The fourth symposium will be organized on the 17th and 18th of November 2015 at AKEPT. This edition is a compilation of selected papers from the 1st SoTL Symposium on e-Learning and Interactive Lecture. There are altogether 17 chapters encompassing case studies, action research and concept works.

I would like to take this opportunity to thank all contributors for making this edition a success. I would especially like to express my gratitude to Prof. Dr. Mohd Majid Konting, Director of AKEPT and Assoc. Prof. Dr. Ismi Arif Ismail, Deputy Director, Centre of Leadership for Learning and Teaching, AKEPT for their continuous support in making the SoTL Symposiums and this Publication Series a success.

Prof. Dr. Mohamed Amin Embi,

Director, Centre for Teaching & Learning Technologies,
Universiti Kebangsaan Malaysia /

Head of ToT Module for e-Learning & Interactive Lecture / Editor

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Chapter

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iTeaching for uLearning: Interactive Teaching Tools for Ubiquitous Learning in Higher Education

Chuah Kee Man
Universiti Malaysia Sarawak

Introduction

The shift of focus to learner-centred approaches in teaching and learning has intensified the increasing use of technological tools in the classrooms. Educators are no longer restricted to the use of traditional teaching resources or materials, but are showered with various technological advancements that enhance the learning experience. Such shift in technological development demands a change in the traditional pedagogy that used to be the epitome of teaching and learning. Hence, interactive teaching (iTeaching) methods are regarded as the much-needed boost for 21st century learning environments in which learners are given more autonomy in their learning process.

Although some researchers (Sokoloff & Thornton, 1997; Van Dijk, Van Der Berg & Van Keulen, 2001) noted that interactive teaching methods are not new, what makes them even more effective is the fact that there are more technological tools to assist the implementation of the methods in the classrooms. Interactive teaching methods like questioning strategies and games in the classroom can be enhanced with the use of suitable tools. This covers hardware supports such as remote clickers and interactive whiteboard (Zevenbergen & Lerman, 2008), as well as various online tools, which have been rapidly included in the teaching and learning activities of many classrooms particularly in higher education. For instance, Lasry, Dugdale and Charles (2014) reported the successful use of flipped classroom concept when they

integrated the Just-in-Time-Teaching (JiTT) approach in which their students are assigned specific pre-class activities through the use of various tools available in their course management system. The online discussions also allow the learners to be more active in sharing their thoughts. Nonetheless, the success of interactive tools largely depends on learners' acceptance and continuing usage of these technologies (Limayem & Cheung, 2008).

Ubiquitous Learning

Ubiquitous Learning (uLearning) may not be a novel concept but the idea of making learning happening anytime, anywhere is enhanced through the advances in computing technology. However, just because the learning contents are freely available instantly, it does not mean learning is happening effectively. Ogata and Yano (2004) summarised the main characteristics of uLearning by covering aspects of permanency, accessibility, immediacy and interactivity. Permanency refers to how learners would not lose their progress in learning unless it is deleted on purpose. Accessibility covers the ability for learners to have access to their learning content from anywhere based on their on-demand requests, providing a conducive online environment for self-directed learning. Immediacy, on the other hand, refers to the instant access to the information, allowing learners to solve problems quickly. As for interactivity, learners can interact with instructors and their peers through various communication channels. Hence, uLearning requires these four characteristics in order to provide learners with effective learning opportunities. Cui and Bull (2005) suggested the incorporation of mobile technology in maximising the potential of uLearning. The inclusion of context-aware features in such technology also permits learners to learn according to their level without the feeling of left out.

Problem Statement

Previous studies have highlighted the benefits of interactive teaching tools and methods in improving students' learning attainment. These tools were studied based on their usage within classroom. Studies pertaining to the benefits of the tools in enhancing ubiquitous learning (learning on demand) are still rather limited. In fact, most of the uLearning tools are studied based on learners' usage in isolation instead of being integrated as part of teaching activities especially in blended mode. This study focuses on the use of uLearning tools within a blended learning environment that emphasizes on the foundations of connectivism (Siemens, 2005) and aims to investigate students' overall perceptions of their uLearning experience.

Theoretical Foundation

The theoretical foundation of the study is illustrated in Figure 6.1. It shows how interactive teaching tools are integrated within the collaborative e-learning platform, which is used in blended mode.



Figure 6.1: *Theoretical Foundation based on Connectivism*

Based on the theory of connectivism, knowledge is disseminated across an information network through various digital formats and learning and knowledge are supposed to be the outcome of diversity of opinions (Siemens, 2008). According to Siemens (2008), learning transpires through the use of both cognitive and affective domains, as these two domains contribute to the learning process. Through the collaborative e-learning platform used in this study, learners would be able to engage in healthy discussion and build a community of learning through various activities conducted using interactive teaching tools.

Research Objectives

This study aims to address the following objectives:

- 1) To find out the roles of iTeaching tools in enhancing ubiquitous Learning.
- 2) To investigate students' perception on the affordances of iTeaching tools.

Methodology

To address the objectives, in this study, a case study research design was employed. As mentioned by Creswell (1994), a case study focuses on the exploration of a single entity or phenomenon by a researcher. The researcher chose this research design as it examines a phenomenon in its natural setting and its findings are interpreted in terms of the meanings people bring to them. In this case, it focused on learning environments in higher education involving undergraduates. A total of 80 participants from two separate English remedial classes (40 each) participated in this study and they were taught by the researcher. They were chosen mainly because the inclusion of iTeaching tools in the teaching and learning activities was said to be able to engage them to learn the English language more effectively. In addition, the face-to-face contact hours

for the classes were only two hours per week, which prompted the researcher to extend the learning environment to the online platform. All 80 participants possessed a mobile device and had access to the Internet regularly.

Data Collection Procedures

For the purpose of the study, several iTeaching tools were incorporated in the teaching and learning activities in the classroom for a period of four weeks (e.g. Padlet, BlendSpace & Viddy). The tasks given had to be completed outside the classroom hours. These tasks were also related to the teaching content with the aim of extending the students' understanding as well as giving them more opportunities to practice. The students were told to complete the tasks anytime and anywhere they wished within a predetermined duration. A simple survey questionnaire (4-point Likert scale) was given after the last task. The students were also required to write a reflection based on their overall experience using the tools. Some of the activities using iTeaching tools are shown in the following section.



Figure 6.2: Video log activity

Figure 6.2 shows an example of video log activity in which the students had to record their activities using their mobile device and share it on YouTube. The purpose of this activity was to allow the learners to use the English language in a natural context (i.e. when going out with family) instead of focusing on classroom interactions.

SHOPPING Habits: Women shop more than men?
Share your views on the topic of "Women shop more than men" - Double click anywhere and put your name before writing.

Angelina Tan(G27)
In my opinion, I cannot completely agree that women shopping more than men. This is because men also shopping more than women. For instance, men who are like fashion and want to be more fashionable, they will shopping more and buying more stuffs. Men who are care about their styles, will always go shopping. Even men who are just ordinary and simple, they also go shopping right? Both men and women are shopping more and they like being fashionable and want to be more updated. Women go shopping sometimes just for relaxing and release their tension. Women like shopping because they like stuffs and want to become more gorgeous. Both men and women are the same because every people will go for shopping.

Lily Farida binti Juni (g26)
I think both women and men have same habit of shopping, however they spend their money on difference things. Women usually spend their money to buy something that can make them look beautiful and trendy person. In other hand, men maybe rarely buying or go shopping. Men often spen their money on gadget, events, gifts, and computing.

MUMTAZAH BT AHMAD PALUZI (G28)
In my opinion,I agree women shop more than men.It's because shopping for the habits women.When women stress,she always waste time at shopping mall.She looking new styles dress or anymore.And then,women shopp

chaikiethui (G28)
In my opinion, women are shopping more than men. This is because when we shopping any shopping mall, the women chose more than men chose. Beside that, design for women uses are quickly have new pattern compare with men they are slowly have new design for men. By the way, most women shopping are for their family. They will buy all daily uses are need in their

mingfatt G28
I agreew women shop more than man because women are smart consumers. Women will make a comparison between all the goods and make the best choice to buy.

Wendylyn Perikcha (27)
yes, I agree women shop more than men because women needs more stuffs than men . womens

Goh Hai Kei O
In my opinion, I think that women

zakiah
I think I agree 'women shop more than men' because it's become a habits for women to please themselves.In addition,also be shopping for their own satisfaction all the desired

(Image of a shopping cart and a woman in a clothing store)

Figure 6.3: Discussion via Padlet

Figure 6.3 illustrates the use of Padlet as part of the discussion activities that were conducted outside of the classroom hours. Padlet was chosen mainly due to its user-friendliness and loading speed.

Findings and Discussion

The data obtained from the questionnaire was tabulated accordingly and analysed using descriptive statistics. In particular, mean score was used to indicate the participants' perception on their overall uLearning experience based on the given items. The mean score higher than 3.0 is considered as high while below that is considered as low. Table 6.1 show the overall mean scores for the items used in the questionnaire.

Table 6.1: Mean scores of questionnaire items

Items	Mean
Do the learning tools help you understand the course content?	3.45
Do the learning tools enable you to practice language skills?	3.62
Do the learning tools help you gain useful knowledge in a real context?	3.31
Do the learning tools help you solve the assigned problem/task?	3.25
Do the learning tools help you review the course materials at any time and place?	3.75
Do the learning tools allow you to collaborate with your friends easily?	3.50
Do the learning tools increase your interest in learning the course content?	3.87
Do the learning tools provide immediate feedback?	2.37
Do the learning tools encourage you to learn more than what is taught in class?	3.37
Do the learning tools contain some forms of tests/evaluation?	2.62
Do the learning tools help you explore a topic further?	3.50
Do the learning tools allow you to communicate with your peers easily?	3.12

In general, the participants perceived the use of iTeaching tools as part of the activities positively which were beneficial to them. They rated highly on all items except for two items, namely on getting immediate feedback (mean=2.37) and also the use of the tools for evaluation or tests (mean=2.62). Regarding the first concern, it has to be admitted that the tools did not provide immediate feedback as most of the tasks given were done in asynchronous mode. Participants were given time to reflect before they actually provided the response. For example, the discussion conducted on Padlet was not really instantaneous in nature although some participants did set a “meeting time” to access the Padlet wall and engage in discussion. Also, discussion via such platforms does not promote sense of community unlike in threaded discussion (forum). Lea and Spears (1992) point out that the sense of being part of a community in the online environment is crucial to inject some forms of positive attitude among the learners in maintaining healthy discussion. In addition, since the participants met each other face-to-face weekly, they do not see the purpose of getting immediate feedback online (Rovai, 2002), hence giving the item a low score.

On their perception with regards to the lack of evaluation or assessment component in the tools, it is undeniable that the tools were not used for this purpose at all by the researcher. Despite the fact that there were opportunities given for peer- and self-assessment via the activities using the interactive tools, the participants were largely ignorant about it. However, the participants were of the consensus that the tools allowed them to review the course content easily (mean=3.75). Most importantly, the interactive teaching tools captured their interest to learn more about the course content (mean=3.87).

Interestingly, two items that yielded rather lower than expected mean scores are *Do the learning tools help you solve the assigned problem/task?* (Mean=3.25) and *Do the learning tools allow you to communicate with your peers easily?* (Mean=3.12). The researcher has expected the students to perceive the tools as a good way to solve problem or complete the task; however, many of them perceived otherwise. This could

be due to the fact that in language learning the problems may not be as apparent as in other areas such as mathematics and science subjects. As for the communication, the learners may not feel the need to communicate virtually since they are meeting each other every week in class.

Nevertheless, as shown in Table 6.1, the overall perception of the students on the use of the iTeaching tools for uLearning is very encouraging. They were able to utilise the tools in enhancing their understanding of what was taught in class. The researcher also noted that the students were more active in class since the activities conducted using iTeaching tools have created a learning environment that was more pleasurable to them. The fear of “doing mistakes” was also reduced.

Participants’ Reflections

Apart from completing the simple survey, the participants were told to write a short reflection from their experience of using the iTeaching tools for uLearning. Their overall exposure to the tools created a sense of excitement among them while encouraging them to learn the course content in a more engaging manner. Some of the emerging themes from their reflections are discussed.

- 1) Ubiquitous knowledge access and sharing
The students believed that the tools have widened their opportunities to gain access to knowledge (course content) ubiquitously without having to depend on what is taught in the classroom. Since all students in this case study owned a mobile device, they felt that the tools provided them suitable platforms to access only content that matters without distractions.
- 2) Authentic context-awareness
The activities designed using the iTeaching tools were also very authentic and created good awareness on the contextualised usage of the needed skills. In this case, the participants were able to practise their language skills in real-life situations and not solely depend on what was done in class. The video log (vlog) activity, for example, has managed to increase their use of English outside the classroom.
- 3) Generate Interest on contents
Another important theme emerged from the reflection is the role of the iTeaching tools in generating interest on the course contents. The students were all unanimous in their view on how the tools have captured their attention in learning the contents. They noted that the use of iTeaching tools made learning “fun and engaging”.
- 4) Seamless collaboration
Besides learning the content, the iTeaching tools used in this study promoted seamless collaboration without having to deal with complicated technicalities. All those (Web 2.0 in nature) were easy to learn and the interface was very user-friendly. This is crucial since complexity in the tools used may affect learners’ participations in the activities.

Implications of the Study

Although this study involved a small sample size, it has shed significant light on the use of iTeaching tools for uLearning. Specifically, it has revealed four key implications. The first implication is on the proper integration of tools with the platform as well as teaching and learning activities. Each chosen tool must be reviewed and well-integrated with the intended usage so that the students would not be confused.

Secondly, the instructor has to establish relevance for the activities conducted. The context for the use of each tool has to be clearly explained to the students and not merely using it for the sake of novelty. Students must also be able to grasp the purpose of using the tool to complete the activities given. This, in turn, would encourage greater participations. Thirdly, it is also pivotal for the instructor to define clear expectation for the students' participations. The instructor has to encourage the students to participate by outlining what they are expected to do. Apart from that, rules can also be given so that they would not be spending time doing unnecessary things. For example, responding to the Padlet discussion at least once a day or no "SMS language" allowed in the discussion.

Lastly, the instructor should also spend time on acknowledging the contributions of the students in all activities. This can be done by using students' responses in the activity or tools during class hours to motivate them. At least, they realise that the instructor is paying attention to what they are doing online. This would also promote them to utilise the tools beyond the confinement of the course. The "transfer" of such skills to other courses can be of great benefits to the learners.

Conclusion and the Way forward

All in all, the students were very positive about the use of iTeaching tools, especially in promoting ubiquitous Learning. This study, despite its exploratory nature, has showcased how iTeaching tools can increase students' motivation in learning the course content without having to depend on what is going on in the classrooms. The face-to-face contact hours can be used for more meaningful learning activities rather than spending time "lecturing", which can be substituted by using iTeaching tools. It is imperative to note that the successful usage of iTeaching tools also lies upon the instructor's ability to integrate them well into their pedagogy. The tools would not be able to do wonder if the instructor is not well-versed in using them for various teaching and learning activities.

To increase the scope of this study, future research can embark on a quasi-experimental approach by comparing two groups of students (one using iTeaching tools, while the other does not). This can perhaps yield better results in terms of the impact of the tools on the learners. Also, more tools can be explored as part of the course activities besides promoting the use of the tools for assessment purposes.

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