

Teaching and Learning Languages in Multimedia Environments in Higher Education

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ABSTRACT – With the current technological innovations in language teaching and learning fields, many higher education institutions (HEIs), particularly HEIs in Malaysia have integrated technological tools in and outside of classrooms. To support this move, education policies are being introduced to prepare ESL learners and instructors, particularly language instructors for the challenges in this technology-enhanced language learning milieu. This editorial section highlights pedagogical benefits for ESL learners from various e-learning environments which are adapted in higher education context, focusing on HEIs in Malaysia. The e-learning environments discussed include Computer-Assisted Language Learning (CALL), Learning Management Systems (LMS) and Computer-supported Collaborative Learning (CSCL). Blended learning and its benefits are also briefly addressed considering it to be an essential feature to successfully achieve a globalized online learning environment. With the integration of these technological tools in language classrooms, it is anticipated for learners to possess the necessary skills and competencies to be active participants in global communities in the future.

ARTICLE HISTORY

Revised: 11 May 2020

Accepted: 25 May 2020

KEYWORDS

CALL

CSCL

ESL teaching and learning

Learning management system

Multimedia environment

INTRODUCTION

English is a language familiar to Malaysians as it is introduced formally as early as kindergarten years and it continues throughout primary, secondary and tertiary levels. Consequently, students need to master English as it is crucial to meaningful learning. It will allow learners to access academic, recreational and professional resources. However, according to the recent Malaysia Education Blueprint (MEB) 2015-2025, employers report a lack of critical thinking, language proficiency and communication skills among graduates. These skills are crucial in the 21st century to become successful (Ministry of Education Malaysia, 2015). Hence, in order to spur continued excellence in higher education institutions (HEIs), the MEB has outlined 10 shifts to meet this demand. All 10 shifts address concerns that are pertinent in realizing the key performance issues in the system. This includes quality and efficiency and global trends that disrupt HEIs' platform. Among the 10 shifts, shift no 9 "globalized online learning" has become an important component in HEIs. This shift integrates blended learning models that will become a staple pedagogical approach in all HEIs in Malaysia. As such, with robust cyber infrastructure, students would benefit immensely as learning would be supported through the use of technologies such as video conferencing and live streaming (Ministry of Education Malaysia, 2015).

In Malaysia, all Malaysian public HEIs support the Malaysia Education Blueprint for Higher Education 2015-2025 by fulfilling all the initiatives lined up in the blueprint. In making lifelong learning as part of Malaysian culture and part of the government policy, online learning, which is in support of the Fourth Industrial Revolution (IR4.0), is addressed in the university's ecosystem in the teaching and learning approaches. In order to meet the higher education challenges, students must be fully equipped with ICT, collaborative skills, critical and creative thinking skills as well as excellent communicative skills, especially English language skills. Such skills can be met through a variety of pedagogical approaches that incorporate technological features that promote learning.

In achieving the aspiration, many Malaysian HEIs are developing a multimedia environment for learners at the university. Such environments include engagement, mediated collaboration and learning convenience because it offers a mixture of teaching and learning approaches, both in classroom and outside of classroom. Classes may be conducted in language or multimedia labs which provide state of the art platforms or soft wares for teaching and learning.

In light of the current COVID 19 pandemic, HEIs are requiring limitation of students on campus grounds, encouraging universities all around the world to adapt well to e-learning. In Malaysia itself, students are reported to be more active online compared to being present in class (Arumugam 2020). Students seem to be more confident in asking questions by typing instead of merely listening in class. This increases the likelihood of conducting interesting mode of teaching and learning without threatening the quality of education. Hence, it is important for instructors to utilize platforms that ensure online learning is effective and exciting.

FEATURES OF MULTIMEDIA ENVIRONMENT

In multimedia environments, teaching and learning processes take place in various means, such as in class via asynchronous and synchronous communication platforms (Kryukov, Gorin & Mordvintsev, 2013). Some HEIs provide multimedia language labs for the students to get access to computers and the internet. Besides conducting classes in the

language labs, it can also be realized through other communication channels either asynchronous or synchronous. Asynchronous communication can be either in email, video recordings, multimedia interactive or forums. On the other hand, synchronous communication can be conducted through video conferences (i.e Zoom, WebEx and Google Meet), chat rooms (i.e Hangouts, WhatsApp) and webinars. Applying both forms of delivery in the classroom, or better known as blended learning offers better learning experience and engagement for every learner (Kryukov et al., 2013).

With regard to the teaching contents in a multimedia environment, multiple forms of media such as texts, graphics, videos, animations and music are integrated and presented to the classroom to cater to different learning styles possessed by different learners (Eskandari & Bidabadi, 2016; Wang, 2018). Furthermore, students are exposed to additional knowledge and essential information outside of the formal textbooks used. Creative educators can share any videos or websites found on the internet that explain more about the topic under discussion. Sharing these network resources mirrors the comprehensiveness of the teaching approach and hence enhances the world view of the students (Wang, 2018).

COMPUTER-ASSISTED LANGUAGE LEARNING

Computer-assisted Language Learning (CALL) is a teaching and learning language approach that utilizes the computer and computer-based resources such as the internet to improve language acquisition. It covers a broad range of activities that encompasses issues related to pedagogical theories, material designs, technology and instructional modes (Beatty, 2010). CALL reflects a student-centered focus on learning. According to Davies, Otto and Ruschoff (2013), CALL has been shaped not only by language pedagogy and second language acquisition (SLA) theories, but it has also been shaped and influenced by computer technology. This has resulted in the growth of CALL, which reveals fascinating pedagogical and theoretical history spanning decades of technological advancements that exposes the different aspects of “language pedagogy and SLA research in which it arose” (Davies et al., 2013, p. 20). With the advancement of technology in the classroom, CALL is commonly used for teaching and learning.

Educators and learners can benefit in using CALL as it offers opportunities to learn at their own convenience. This includes computer programs that offer interactions to help learners use language effectively and communicate in real life communicative situations (Azadeh, 2012). Such developments have also increased in second language learning, where a number of CALL systems are created to assist in learning. According to Azadeh (2012), some systems concentrate on vocabulary building while others concentrate on grammatical structures. Some focus on pronunciation activities while others concentrate on situation-based conversations. For example, in a local context, a study looked into enhancing speaking skills through CALL among adult learners in Universiti Sains Malaysia (Murugaiah, 2016). The study utilized Pecha Kucha presentation style that refers to a concise and well-prepared presentation format in both speaking and writing activities. The study found students were able to think critically, equipped with relevant knowledge and provided new perspectives. Data was collected through interviews and observation that provided evidence that CALL tools created better opportunities for students in extemporaneous language learning. The study suggested more pedagogical supports and trainings in CALL.

LEARNING MANAGEMENT SYSTEM

Learning Management System (LMS) is a web-based software application that manages learning of educational courses. There are various types of LMS that have been developed such as Blackboard, WebCT, Moodle, Sakai and Edmodo. LMS are now almost ubiquitous in undergraduate and graduate courses because they are systems built to monitor and manage learners, educators and course contents (Nor Fazlin, Saadiyah & Nadzrah, 2011). University instructors have been using LMS to make learning accessible, facilitate discussions and communicate with students (Goh, 2019). For example, modular object-oriented dynamic learning environment (MOODLE) is a free open access e-learning platform that caters to both the instructors and learners. Instructors have the opportunity to upload materials that enable students to download them. Students are able to submit assignments and be involved in chats and forums. Instructors may also conduct quizzes or tests online. Moodle is highly operable and user friendly, which is now becoming an integral part of university courses (Kryukov et al., 2013).

LMS consists of different tools such as discussion forum, calendar, course builder, and grade book. Recently, many educational practitioners have used Online Discussion Forums (ODF) in teaching and learning in higher education. According to Tan (2017), the development of ODF in both compulsory and higher education have increased ever since e-learning has been accepted as a tool for building the knowledge economy of Malaysia. In addition, LMS that includes ODF are consistently used by universities to manage their courses. For example, in a study that looked into knowledge building in a local context via Moodle platform found that students were able to connect problems and questions into real life scenarios (Goh, 2019). The study analyzed online discussion threads during a 3 week course among 18 participants that included the facilitator. More than 200 asynchronous data from ODF were analyzed using Atlas.ti, a qualitative software in organizing coded data. The study concluded the need to execute knowledge building studies as an action research in order to improve knowledge building among learners.

Similarly, Suppiah, Lee, Lajium and Swanto (2019) utilized EDMODO as a learning platform among pre-service Malaysian teachers guided by the Community of Inquiry framework (CoI). The study analyzed a collaborative and dialogue based approach with the use of online reflection posts. Although the findings revealed that most of the data reflected CoI key indicators, that there were some shortcomings in terms of enhancing and providing a more critical evaluation of the topics under discussion. However, the study revealed the need to ‘trust’ CoI in order to establish a more genuine and constructive learning environment.

COMPUTER-SUPPORTED COLLABORATIVE LEARNING

While collaborative learning is gaining more attention, Computer-supported Collaborative Learning (CSCL) has emerged as a separate entity. CSCL occurs when a group of students collaborate to create meaning or knowledge with the support of technology (O'Malley, 2012). This approach takes into account the use of computers to support learning in a collaborative manner. According to Vygotsky (1978), learners learn more from others with different skills and backgrounds. They share their experiences and influence one another when they learn together. According to Social Constructivism, collaborative learning is a powerful approach that actively constructs knowledge for educators and learners to increase intellectual development (Vygotsky, 1978). CSCL concentrates on how learning can be enhanced through computer mediated collaboration that focuses on knowledge construction in a community within a learning environment, and aims to achieve a specific purpose (DeWitt et al., 2014). In fact, the collaboration process is improved for learners when technologies that are used allow students to socialize using other collaborative techniques.

Today's classroom is often supplemented by online discussion and interactions among the students and the instructors. Some studies have proven that CSCL improves interactions, productivity and performance compared to traditional learning methods. For instance, in a collaborative environment, students construct their knowledge efficiently based on the feedback from peers and instructors. Abdullah, Hussin and Shakir (2018) who looked into the influence of electronic feedback (E-feedback) on ESL writing anxiety level found that these 28 Masters students' writing anxiety level decreased when instructors' and peers' feedback were given online. Furthermore, the collaborative learning process which occurred through group discussion with their peers and interaction with the instructor in a blog and forum had successfully improved their writing performance. In a similar study, Gharehbagh, Stapa and Darus (2019) used another technological tool that is Wiki, a platform to help 14 students to improve their written works. Discussion with peers on their essays, comments given by peers and feedback from the instructors through the Wiki platform heightened the students' enthusiasm and motivation to improve their essay writing, and consequently enhanced the quality of their work. These studies indicate that better learning engagement happens with the application of technology in classrooms. In addition, students are also allowed to reflect their language learning and language acquisition processes by giving an in-depth thinking on their own performance in a collaborative environment.

BLENDED LEARNING

Blended learning is becoming increasingly popular in many universities and institutions where learning and teaching includes face-to-face and e-learning. This mode of learning complements face-to-face interactions among the learners. However, according to Lam, Lau, Shim and Cheung (2013), a clear distinction should be made about blended learning in comparison to face-to-face learning. This includes:

1. Face-to-face lessons that give educators control of the lessons, where they are designed with the aims of conveying knowledge to students in a typical four walls classroom. Blended learning on the other hand involves knowledge that is co-built, created and shared by both the educators and students.
2. The environment in which learning takes place, where face-to-face includes a fixed time, location and contact hours. Blended learning encourages self-learning regardless of time and place.
3. The mode of delivery in the form of class activities and student-educator interactions. Blended learning also emphasizes these elements with an added value that includes online interaction among the educators and students.

With such differences, developing programs into blended mode is considered a complex process that requires an evaluation of students' needs, preferences and accessibility. There is not a 'one size fits all' concept when it comes to blended learning modes of teaching. However, depending on the context, such blended mode includes CALL programs, use of the internet, LMS and CSCL to name a few. This combination may include interactive platforms such as Kahoot, Quizziz, language learning applications such as Duolingo and social networks such as Instagram and Facebook and many more.

CONCLUSION AND OUTLOOK

With the innovations in technology in the field of language teaching and learning, the instructors are demanded to be more creative and effective in facilitating language learning. Instructors' roles in a multimedia environment have also changed to become consultant and facilitator who now play a bigger role to not only manage the classroom effectively but also manage the technological tools in the classroom efficiently. Selecting the most appropriate technological tools in designing tasks and assessments is a very complex process, in which the principles and theories of language learning and acquisition must be taken into account. The instructors must always update their knowledge and ability to keep up with the rapid changes in technologies. Besides that, instructors must also take into considerations of the learners' social and economic constraints even though these tools are found to support language learning.

In summary, a multimedia environment advocates language learners' engagement through various features and a variety of pedagogical approaches that incorporates technological features which caters to different learning styles of the generation Z-learners. Even though many studies have yielded positive results with regards to students' language learning

and language acquisition in a multimedia environment, it is vital for higher educational institutions to prepare essential and adequate facilities to overcome constraints faced by the learners and the instructors. It is foreseeable that these technologies will continuously foster autonomous learning and increase motivation among language learners to perform efficiently in their lifelong learning journey.

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