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Mobile Ubiquitous Learning is the Need of the Hour for English Language Teaching During COVID-19 Pandemic

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"All people naturally want to know" is how Aristotle, one of the greatest thinkers in history, opens his well-known book Metaphysics (Aristotle, 2010). Humans are recognised to possess a wide range of potential skills in the modern day. Among these skills, knowledge, learning, and curiosity surface during a person's growth and start to take shape under the impact of their surroundings. Our understanding comes from the realm of sensations. In the same book, Aristotle discusses the value of the senses and offers the proverb "who loses a sense loses a world." He stresses the value of the senses in learning by noting that they are a vital tool for comprehending the cosmos and what is happening. He stresses the use of the senses in learning by stating that "science is based on the senses but senses are not science," noting that "the senses are an important aid in understanding the universe and what is happening" but also acknowledging that "the senses can be misleading from time to time."

Learning is a continuous process that occurs throughout a person's life and is characterised by long-lasting behavioural changes (Senemoğlu, 2005). In other words, learning may happen anywhere. It is largely distinct from education and training, which are mostly tied to organised contexts, regardless of whether the learning takes place in structured,

semistructured, or unstructured situations (Toprak & Erdoğan, 2012). Humans are social creatures by nature, therefore they can learn anything, anywhere, at any time. But as we now live in a technologically advanced world, education has also advanced beyond its traditional

The perception and motivation of students towards e-learning in the context of the COVID-19 pandemic. The notion of ―Ubiquitous learning‖, a novel way to learning, has emerged as a result of expanding internet services to vast geographical regions, expanding coverage areas of networks, increasing the usage of mobile devices, and using sensor technology extensively.

All stakeholders in the education sector have the opportunity to test novel teaching strategies, implement creative approaches, and create new learning possibilities in learning settings facilitated by modern technologies. One may argue that the fast evolution of information and communication technology revolutionised the field of education. With the increasing usage of the Internet, there is now a chance to gain more from computer networks. The emergence of e-learning is the result of this. With the proliferation of mobile devices, wireless networks—which are only useful with computers—have played a significant role in the birth of mobile learning as a new kind of education. The idea of ubiquitous learning is founded in mobile and wireless communication technologies as well as sensor technologies. Furthermore, it is well recognised that ubiquitous learning offers rapid access to knowledge and greater involvement than e-learning (Boyinbode & Akintola, 2009).

Following the ideas of e-learning and m-learning, the broader learning type known as "ubiquitous learning" incorporates these two forms of learning. The creation of context-awareness by perceptron technologies is the key characteristic that sets ubiquitous learning apart from other forms of learning (Huang, Chiu, Liu, & Chen). According to Shih, Tseng, Yang, Lin, & Liang (2012), context-awareness refers to the knowledge that learners have about the location, movement, weather, time, and other aspects of the learning environment. According to Shih et al. (2012), learners in ubiquitous learning acquire knowledge by assimilating information from their surroundings. Regarding its indicated qualities,

ubiquitous learning has significant promise for the field of education. Numerous educational characteristics are improved by ubiquitous learning. In addition to improving academic performance, this system also positively impacted students' perceptions and motivations regarding e-learning during the COVID-19 pandemic (Liaw, 2008; Tseng, Chu, Hwang, & Tsai, 2008; Chu, Hwang, & Tsai, 2010; Hwang, Chu, Lin, & Tsai, 2011). Furthermore, students' problem-solving abilities are positively impacted by their capacity to retrieve knowledge straight from the context (Shih et al., 2012). Hwang et al. (2011) came to the conclusion that when ubiquitous learning technology is used in the classroom, students' favourable attitudes and perceptions of the lesson improve. Furthermore, ubiquitous learning technologies also have a favourable impact on learning time, according to Chen and Huang's (2012) research. Pervasive computers and technology are the foundation of ubiquitous learning (Weiser, 1991). It makes learning and studying possible whenever and wherever (Hwang et al., 2008; Sakamura & Koshizuka, 2005). According to Huang et al. (2008) and (2011), the learner may effortlessly immerse themselves in the learning process through the use of mobile devices, embedded digital and functional objects, and perceptual technologies.

One of the most visible effects of the COVID-19 pandemic has been the digital shift in education. Mobile ubiquitous learning is one of the suitable learning strategy that integrates mobile technology and enables learning to be carried out without limits , anywhere, and anytime. It seems that a new light peeps through the darkness of despair during this lockdown period.

Ubiquitous learning is the next step in performing e-learning and it is expected to lead to an educational paradigm shift, or at least, to new ways of learning. The potential of ubiquitous learning results from the enhanced possibilities of accessing learning content and computer-supported collaborative learning environments at the right time, at the right place, and in the right form.

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The main characteristics of ubiquitous learning are −

1) Permanency: Learners can never lose their work unless it is purposefully deleted. In addition, all the learning processes are recorded continuously everyday.

2) Accessibility: Students have access to their documents, data, or videos from anywhere. That information is provided based on their requests. Therefore, the learning involved is self-directed.

3) Immediacy: Wherever learners are, they can get any information immediately. Therefore, learners can solve problems quickly. Otherwise, the learner may record the questions and look for the answer later.

4) Interactivity: Learners can interact with experts, teachers, or peers in the form of synchronous or asynchronous communication. Hence, the experts are more reachable, and the knowledge is more available.

5) Adaptability: Learners can get the right information at the right place in the right way.

Technology is an effective tool for learners. Learners must use technology as a significant part of their learning process. Teachers should model the use of technology to support the curriculum so that learners can increase the true use of technology in learning their language skills.

The application of technology has considerably changed English teaching methods. It provides so many alternatives as making teaching interesting and more productive in terms of advancement. For example, The application of Computer Assisted Language Learning (CALL) changes learners' learning attitudes and enhances their self-confidence. Finally, learners can process new learner-based educational materials and their language learning skills can increase. The use of technology has changed the methods from teacher-centered to learner-centered ones. Teachers should be facilitators and guide their learners' learning and this change is very useful for learners to increase their learning

U-learning applications started to focus on language learning systems such as Japanese Polite Expressions Learning Assisting System (JAPELAS), Japanese Mimicry and Onomatopoeia Learning Assisting System (JAMIOLAS) and Language-learning Outside the Classroom with Handhelds (LOCH). The use of a mobile phone for the teaching of foreign languages, such as teaching English to Japanese people or the teaching of Italian language to Australians.

For mobile ubiquitous learning first of all we have to create a website, providing functions enabling learning to take place anytime and anywhere with any available learning device, for ubiquitous learning according to various properties of mobile devices. Nowadays, learners' behaviors on a website can be recorded as learning portfolios and analyzed for behavioral diagnosis or instructional planning. A student model is then built according to the analytical results of learning portfolios and a concept map of the learning domain. Based on the student model and learners' available learning devices, three modules are developed to build a ubiquitous learning environment to enhance learning performance via learning status awareness, schedule reminders and Discussion forum.

Based on the conceptual design three modules are presented as follows:

1. Learning status awareness module. This module analyzes students' online learning performance, such as learning works, test results and self-assessment results, to capture a learner's knowledge on language acquisition status. The module transmits messages about unfamiliar concepts to remind students of what they should learn in a given time frame. The module can also provide adaptive pop-up quizzes on a cell phone to increase learners' learning opportunities.

2. Schedule reminder module. This module enables teachers to manage and adjust the course schedule. All the adjustments from a teacher are immediately applied to students' personal schedules in the web learning system, and students must adjust their personal learning schedules accordingly. Students are reminded of incoming tasks and urged to complete them. Additionally, the gap between a student's current learning status and learning

goals is calculated and transmitted as motivational information, encouraging all learners to pursue their learning goals before beginning a test

3. Discussion Forum module:

In this module, there will be a community section. In this section, students can post their queries. Their classmates may answer those queries. The students may fail to give the right answer. So, the expert will check all the answers. After the verification by the expert, the right answers will get verified in batch. The teacher can also upload PDF, doc, audio or video for reference purpose. We also provide bad key-word filter in the community tab.

Digital Games are a funny way to practise English – it can be a really motivating way to learn a language. Games are also great for those students who are shy or worried about making mistakes. It can give them an opportunity to communicate in English in a safe and funny way. Hence Digital games are also included in this ubiquitous learning website to help learners improve their English language. Only those students who attend all the classes will be permitted to access those games in the pre-scheduled time.

Now I intend to focus on the system architecture of the ubiquitous learning website. The web-based learning system operates on a Microsoft Internet Information Services (IIS) web server. Online learning activities of readings, quizzes, discussion, keyword self-assessment, homework submission, and examination are available on the learning website. The web learning system uses the Oracle database management system (DBMS) as a repository of students' learning behaviors, since its trigger functions can automatically send appropriate messages to learners at the appropriate time. All students' learning behaviors on various learning devices and online test performance were recorded to construct a student model. The student model includes a student's learning preferences and his learning status for every concept in a course. The information-aware system adopts the student model to determine what recommendation should be made and transmitted to a student's cell phone.

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Additionally, the information-aware system can remind students about scheduled tasks and upcoming classes.

To conclude I can point out that The advancement of computing and communication technologies have promoted the learning paradigms from conventional learning to e-learning, from e-learning to m-learning and now it is evolving to u-learning. U-learning aims at accommodating learners in their learning style by providing adequate information at anytime and anywhere as they wish, which will be very effective during this lockdown period.

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