M-learning for Eco-Packaging using KM

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Abstract— the purposes of this research were to develop the M-learning with the application of Knowledge Management for the course in Eco-Packaging in order to find solutions to the issues of insufficient time spent for instruction in classroom, resulting in lack of proper practice, and paper waste for the design, resulting in high cost and visual assistant method for learning and developing ability of students.. The samples group of this study was 30 undergraduate students from department of Packaging Technology, Faculty of Industrial Education and Technology, King Mongkut’s University of Technology Thonburi. The sample was obtained by using the simple random sampling method and used 5 experts for evaluation the application. The students could access the Interactive M-learning by downloading the application from the internet and learn by themselves. In each chapter of the M-learning, there were different kinds of eco-packaging along with relevant information. After learning in each chapter, the students needed to take a test before going out. When student would enter their own working space and could see their pieces of homework, which they were doing in digital format. Their records for activity and homework would be made automatically to KM method. The KM content could help another student to design the assigned packaging. Moreover, learners had more time to practice outside classroom also in anywhere and any place.

Keywords- M-learning; Knowledge Management; Eco-Packaging;

I. INTRODUCTION

Eco-packaging is an important part of environment and marketing a product. It catches the customers’ attention. It also provides information about the product to the customer; on the other hand it protects the product. The eco-Packaging design as a trade dress is a subtle form of marketplace communication that delivers a powerful marketing tool for promoting sales and brand loyalty. It also may lead to the right to exclude competitors from similar designs. Thus, eco-packaging design is a course related to the design and the application of the designed package to make the product. Therefore, the course must focus on the design and the eco-package production in team. However, the practice cannot be achieved due to the limitations in budget for nonrenewable materials, especially paper, resulting in the students lacking enough materials for practice. Moreover, because of insufficient time in class, the students have to continue their work at home. Other problems also arise such as some students do not work at all whereas other students must work very hard to finish the assignments on time [1].

M-learning is professionals cite benefits to learner. The learner benefits from the opportunity to prepare himself/herself for greater ability, increase their competitive in an globalization. M-learning also has advocates in worldwide and can improve students’ performance in the classroom and daily life. Thus, M-learning is professionals cite benefits to learner. The learner benefits from the opportunity to prepare themselves for greater ability increase their competitive in a globalization. However, a big advantage is that the M-learning also supports the delivery and use of multimedia elements, such as sound, video, and interactive hypermedia [2]. Now a day Interactive M-learning can provide flexibility and convenience. It can overcome some traditional barriers such as time and place. Learners can access materials independently [3]. In addition M-learning does not require extensive computer skills, although familiarity with computers and software does help to reduce the intimidation factor [4].

Therefore, this research aims at proposing some key concepts in developing the M-learning with the application of Knowledge Management method for the course in Eco-Packaging. We have studied and applied the theory of M-learning and Knowledge Management for learning in the way that the learners could use their previous knowledge, opinions and searching from the KM in order to build up new bodies of knowledge in a systematic way. However, in this paper will be presented in order to develop a new instructional approach to make it successful and effective for students. The steps in the development will be explained next. The remainder of the paper is organized as follows: firstly in section 2 we discuss the approach and illustration of the components’ architecture. Finally, in section 3 we discuss the results at the moment, point some limitations and provide cues for possible future work.

II. THE APPROACH

The paper presents an innovative technology on an M-learning for Eco Packaging course using KM. It begins with related work on using internet technology for create instruction media. This application was M-learning system; accordingly this research will consider the possibilities and limitations of visual feedback as a promising channel for M-learning. The basic aim of this system was to include innovative learning technology such as learning content, blog and social network into the online envelopment as see fig. 1.
The mainly module of innovative technology on M-learning for Eco Packaging course using KM display typical content and multimedia, then students can learn by following the content, multimedia and interactive hypermedia. User interface of this module is divided into various sections frames. At the down sides of the user interface show that the multimedia control window and the navigator at the right hand side. At the top of the user interface we put the basic buttons of using the system. In each chapter of the M-learning, there were different kinds of eco-packaging along with relevant information. After learning in each chapter, the students needed to take a test before going out. When student would enter their own working space and could see their pieces of homework, which they were doing in digital format. Their records for activity and homework would be made automatically to KM method. The KM content could help another student to design the assigned packaging. However, students can use blog and social network for support their learning. Finally, this system can confirm that M-learning for Eco Packaging course using KM is a novel application and provides chances of reaching toward professionals cite benefits to learner.

III. CONCLUSION AND FUTURE WORK

M-learning for eco-packaging using KM method was the widely-available on mobile learning. The application was highly valued products are on the market and have a provide success for combine mobile learning and KM technology for education. In addition, the M-learning for eco-packaging using KM method interact with user via internet technology and also support mainly platform such as Window phone, iOS and Android. More ever, for the result at the moment showed that user more interest and enthusiasm in learning content. For the further, researcher plan to tryout the proposed system with 120 students from department of Packaging Technology, Faculty of Industrial Education and Technology, King Mongkut’s University of Technology Thonburi., Thailand and find the efficiency of this system. In addition, researchers plan to continue our research, looking for different technique for develop innovative learning such as collaboration, participatory and problem based to improve learner opportunity and education. Therefore, this can concluded that the developed application can be utilized for this course.

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