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PHOTOGRAPHY THROUGH THE U-LEARNING APPROACH

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Abstract

The revolution of Web and the grooming of digital media redefining changing practices and professionalism of photography in the digital age and promoting the expansion of communicating photographs, which enable us to share our viewpoint based on photographs. It encourages a new form of teaching and learning structure that lead to a newer learning experience. This paper presents Ubiquitous learning or U-learning in which the online component is used to crave new teaching objectives that can't be achieved with a traditional classroom setting, because of class time limitations and the nature of the module. In addition to the integration of high mobility into the learning environment for photography module with various online collaboration in campus, practice activities could be used to subsist with similar instructional challenges in other subject matter domains. This paper investigates the effectiveness of U-learning to manoeuvre a greater level of authenticity in canons of photography and also the real world relevancy for photography students. The result showed the U- Learning activities cultivate the kinds of "portable skills" to redesigned learning for students to progress to a higher level and allow for employment opportunities that provide the greater impact of their learning experience.

Keywords: Blended learning, Digital photography, Interactive multimedia learning, Mobile photography, Technology in education.

1. Introduction

The developments in photography from film to digital till expansion of snapshot culture have shaped-and then reshaped-the new pathways for teaching and learning photography under the perfect intersection of technology and sensibility that leads to creative learning, by implementing new methods, tools and contents that can benefit learners and their creative potential [1]. Baker [2] clarified that today, the medium of photography had gone through a transformation. Such trend is also applicable for both academic or social value using the unique Ubiquitous Learning or U-learning approach that affect the students' generative learning, including how the image is constructed in order to offer a particular response experience and explores photography experiences anywhere and anytime learning.

The adoption of U-learning with the incorporation of online elements into academic module promotes the need for educators to encourage "learning with U-computing technology" [3] that lead to effectiveness and holistic contribution in the learning process for the millennials. Most importantly, lecturers need students to co-construct their digital environment, rather than just being consulted about it [4] which is more focused on developing resilient individuals to fulfilled 21st Century Learning Skills where four core competencies such as collaboration, communication, creativity and innovation, critical thinking and problem solving.

It unlatched a new learning paradigm for photography module where the traditional photography pedagogy (included lectures, tutorial classes activities and discussion, personal assignments, group assignments, a final project and a peer evaluation activity of the final project) replaced by the learning experiences grounded in content-specific technology proposed as professional development that produce the future ready graduate. This flexible U-learning approach consists of two parallel layers which are the on-campus part by a traditional basic photography introductory course structure, where the students perform various practical exercises in order to gain the fundamental camera and photographic skills, and U-learning can be translated into digital format by preparing the students to use wireless infrastructure especially in photography to showcase their camera competency in class/online using E-Journal as an innovative platform to document student learning and promote reflection throughout their university experience [5]. It reflected the effective integration of innovative teaching pedagogies and engender more meaningful learning experiences in photography module.

Research Objective and Research Questions

This research aims to examine the U-Learning approach utilized in Photography module. This research also attempts to identify the reception of our millennials, specifically the Photography students through the digital experience when we hook up campus spaces with the World Wide Web concept [6] in the process of knowledge creation, learners link new knowledge with their previous ones [7].

RQ1: How does U- Learning enhance students' knowledge about photography?

RQ2: How does U-learning help to enhance students' photography competency?

2. Literature Review and Theoretical Framework

Jaiswal [8] reported that U-learning is consider as a new hype in the information and communication world. In this case, is associated with the camera, computer, mobile devices, etc., which have computation and communication capabilities used in our daily life [9] that allow learning to interact with the living environment. This Ubiquitous Learning domain enables learning the right thing at the right place and time in the right way. Students are tested to demonstrate their photography competency to learn to solve new problems 'by seeking help from other resources (online or visually learning content) or by experiment, and receive feedback, and getting opportunities to revise'. The inclusion of knowledge with technology and the continual use of the technology, or training affecting the user's acceptance of the same technology [10]. Hence, such familiarities will build trust in the technology and perceive the technology as easier to use [11]. U-learning discloses exponentially growth in learning as an ability to directly apply previous learning to a new setting or problem in photography since new circumstances affect the abilities each person has to see the critical aspects in the learning object.

According to Jason Meneely [12], we need to teach students not only how to acquire knowledge, but to be problem solvers, how to think and operate when they don't have all the information, in U-learning students learns automatically within the u-space or U.L.E. or Ubiquitous Learning Environment. In many academic disciplines, the curricula are moving to constructivist learning theory where students actively construct meaning when they make their own discoveries during the learning experience. Photography stimulates a form of interpersonal communication in our daily life with the effective integration of innovative teaching pedagogies that unceasing the learning process to best prepare graduates for the workplace.

U-learning can be easily set up with the existing technological environment. This paper implies a relational approach to understanding the perspectives from photography students with regards to the effectiveness and their performances of camera competency that has been accelerated by the improvement of wireless, telecommunication capabilities, open network, continued increases in computing power, and the emergence of flexible software architectures. In this case, by assigned students to use Wix Website (E-Journal) to answer the weekly exercise given, these answers require them to experiment (online resources) each of the features of camera with the dedicated theme that are industry relevance such as food photography, desktop lighting, portrait photography which translated into digital format via wireless technology in ULE.

This research will find out the adoption of a U-learning approach that accessible 24X7 to cultivate the continual learning experience. Students are required to use the E-journal in innovative Digital Learning Environments (DLE) that will make them enthusiastic that is the pre-requisite for good learning. The variety of photography setting in disciplines of regularity, punctuality creativity may be introduced not only in traditional learning environments also blended together with new technologies and pedagogical tools can be integral in photography module.

3. Methodology

A qualitative and quantitative case study was carried out to grasp an understanding of how U-learning approach with the combination of wireless technology and

mobile computing has resulted in escalating transformations in the education domain [6].

This paper is, in nature referring to a series of experiment demonstrating how beginner photographers use E-Journal to record their efforts, abilities, and progress during their education journeys [8]. This research also attempts to identify the reception of our millennials, specifically the Photography students through the digital experience when we hook up campus spaces with the technological assessment practices in the process of knowledge creation and reclaim the unique disciplines and essential skills of photography students to meet the ever-changing demands of industry.

3.1. E-journal

E-journal or used to known as e-Portfolios may be a personal and professional online space for students to showcase their experiences and demonstrate their skills [13] and emphasis shifts from teaching to facilitating effective learning and to promote the concepts of ownership and 'reflection on learning' [14] among students.

Hence, for this research students are required to create E-journal (Wix Website) as a platform to showcase a student's skills and demonstrate a student's accomplishments to potential employers. This method is indispensable for discussing the effects of how U-learning enhance knowledge and performance of students' photography competency that lead to greater learning experiences and addresses the research questions. Moreover, the E-journal also was intended to foster students' engagement while demonstrating skills to potential employers and can reclaim the unique disciplines and essential skills of photography students to meet the ever-changing demands of industry.

With the study of E-journal, we hope to gauge information about the integration of high-impact digital environment to help to facilitate students to display their self-reflection about photography curricular experiences at the university. Furthermore E-journal often better organizes student evidence, assessment practices, and assessment reports [5].

3.2. Questionnaires

Questionnaires could help to lead to basic information on the users' relationship to their digital context and the importance of high-impact practices, for future use in photography. Additionally, in-depth questions will focus on issues in the photography performances that will generate further information on users' thoughts about the different functionality of U-learning. The internet offers many advantages over the traditional method and being explored by a number of researchers [15] including web-based questionnaires [7].

Patten [16] explained that questionnaires provide an efficient way to collect data. Moreover, questionnaires can be used on their own or as a part of a broader study to clarify or to deepen understanding and such low-budget surveys are conducted for a feasible sample size which may be very limited [17]. There is no cost of running the online questionnaires as google form is being used.

The online questionnaires were given to students at the end of the semester, to obtain basic information on the users' preferences of their U-learning enhance

knowledge and performance of students' photography competency reclaim the unique disciplines and essential skills of photography students to meet the ever-changing demands of industry. In addition to that, some questions will probe deeper into issues pertaining to the effectiveness of technology's applications in the classroom that leads to higher student satisfaction, and overall improved learning.

4. Data Collection and Analysis

All data collected through questionnaires and E-journal were tabulated and analysed to fulfil the goals of the research. According to Lorenzo and Ittelson [18], E-journal or e-portfolio refer to a self-selected multimedia presentation of students' work, in this case, we use Wix Website that record a rich, textured view of a student's learning and development. Eventually, the E-journal recap as "collect, select, reflect and connect".The report (E-journal) from the participants were transcribed so as to facilitate easy analysis according to the research questions and across similar or opposing opinions. Responses from the online questionnaires survey were retrieved from the google forms after the specified duration given to the participants ended. The information generated from the google forms would be used for further analysis.

All data collected for this paper were analysed after it was collected. Results from the online questionnaire were based on answers from 48 respondents were directly tabulated since the questionnaire is short and relatively straightforward [17]. This process demonstrated how the analysis of the collected data from students proceeded toward the central ideas that captured the phenomenon of technical innovation used.

E-journal that used to gauge information about the integration of high-impact digital environment help to facilitate students to display their self-reflection about photography curricular experiences at the university. The answers given could be used to showcase how U-learning enhance knowledge and performance of students' photography competency reclaim the unique disciplines and essential skills of photography students to meet the ever-changing demands of industry.

This process demonstrated how analysis of the raw data from the E-journal transcripts proceeded toward the central ideas that captured the phenomenon of technical innovation used. The reliability and validity were examined through procedures of checking the transcripts for obvious mistakes [19] and cross-checking a thorough description of the research ideas/data from the multiple participant perspectives to support these ideas/data.

5. Findings and Discussion

The findings of this study investigate the U-learning in relation to students learning experience towards photography module by captured students' progression while studying the photographs captured.

The results of the findings fall into two thematic categories, which provide answers to the Research Questions:

RQ1: How does U- Learning enhance students' knowledge about photography?

RQ2: How does U-learning help to enhance students' photography competency?

5.1. How does U- Learning enhance students' knowledge about photography?

By using E-journal, the participants delineate and prohibit how virtual resources and flexible learning space improve the effectiveness of photo-taking, with adaptation to instructions, video and online guidance made a significant effect on the result by allowing students to explore and experiment themselves. The exercise consider as a personal expression which photos are now become evident for documenting everyday situations, things and places as in Figs. 1(a), (b) and (c) from different participants showed the result from online video tutorial and on side camera competency tested. It predisposition that U-learning evolves to be the main tool for photography, this is due to they are convenient and connected to the internet and social network.

a) E-journal from participant 22 **(b) E-journal from participant 17** **(b) E-journal from participant 28**

Fig. 1. Photographs from E-journal (Theme: Panoramic Planet) as the evident for documenting everyday situations, things and places.

Below is the reflection from different participants for photo a, b, and c.

Participant 22 reflection of Photo Fig. 1(a): *"While I was trying to create the panoramic planet, I got to practice interesting Photoshop functions which I did not know about, such as the merging of layers and adjusting the perspectives. Though the results were very satisfying, I was even more thankful for being able to acquire new Photoshop skills through the journey of this exercise. Photoshop's ability to combine several photos into a single panorama really amazed me and I can also see myself practicing this skill very often in the future. Overall, the final edit of the panoramic planet made me realise how in just a short distance, the brightness of one end to the other end of the landscape may differ. This has once again proved to me that in order to produce a more consistent result, it is important to always pay attention to the camera adjustments be it in terms of ISO, aperture or shuttle speed. Especially when the photos are based on natural lighting."*

Participant 17 reflection of Photo Fig. 1(b): *"This exercise allowed me to explore my kampung. By doing this activity, I have found the place to enjoy the most beautiful scenery at my kampung. I have learned to produce panorama without using the phone and I finally know how to create the panoramic planet earth that I amazed a long time ago."*

Participant 28 reflection of Photo Fig. 1(c): *"The landscape shot was a difficult shot for me as my residence had no open fields for an optimal shot. I settled on*

Taylors, and although the final result doesn't look as for how I wanted it to be, I'm still glad I managed to learn the process."

From an educational perspective, E-journal also uses as a personal and professional online space for students to showcase their experiences and demonstrate their skills [13]. This can be detected for food photography exercise that took place at 2 restaurants (Truffles and Thymes) within 2 hours. As food photography is a popular trend now, it is proven when more and more cookbook and recipe book and magazine found on the bookshelf. The E-Journal showed that students will able to produce better quality photos, with better effects due to certain functions and restriction found in restaurants as showed in Figs. 2(a), (b) and (c). As photography has to turn out to be an integral part of popular culture throughout the 20th century, and phone cameras are delightfully venturing into new practices of vernacular photography.

a) E-journal from participant 5 **(b) E-journal from participant 7** **(b) E-journal from participant 4**

Fig. 2. Photographs from E-journal (Theme: Food Photography) as the evident for documenting everyday situations, things and places.

Below is the reflection from different participants for photo a, b, and c.

Participant 5 reflection of Photo Fig. 2(a): *"This week we had a chance stepped into Thyme and take food photography. The challenge was to deliver and create the attractive still life photographs of food. Before I went to take the food photography. I created the black backdrop with using the mounting board at home. Besides that, I also brought along my LED lights to light up the food and make it look more attracting. In addition, we also required to take one food picture with window lighting. I can see a huge difference between these photographs under two different lighting. In conclusion, I more favor the food photograph that under the LED lighting because I manage to control the lights and the composition of the food."*

Participant 7 reflection of Photo Fig. 2(b): *"From the food photography project, I learned how lighting plays a crucial role in making the food looks stunning and appetizing. Angles of taking a picture also determined which part of the food you want to focus on the photographs. Honestly, this was one of the most tiring lunch I have ever experienced. However, I'm grateful for the attempt to professionally take picture of my food with my friends."*

Participant 4 reflection of Photo Fig. 2(c): *"Having to take my own food photography help me realised that it is not as easy as it looks. It made me respect Instagram food bloggers, as much effort (lighting, props, angles, skills) is needed*

for one delicious shot. Besides, I feel that I should familiarise my camera's settings to improve the quality of my photos."

The students' willingness to embrace such knowledge transfer is an important factor for the organization in promoting knowledge management (photography). Such a factor would rely on whether it will be helpful for their job execution. As not everyone can adapt to the new digital paradigm and it also depends on the levels of access and frequency use of technology with which various technology-supported activities are undertaken. This also includes the benefit from the technology according to the logic of practice within that context [20].

5.2. How does U-learning help to enhance students' photography competency?

The participants of this study affirmed that (93.8%) agreed the U-learning environment making progress with regard to developing learning and skills at their own time and pace for photography class. The participants felt that they benefited from the online resources that able to crave a better understanding of camera settings and exposure, this is because they get to know the techniques for various photo-taking activities and video online. On top of that, by experiencing exercises themselves on their own, they gain more knowledge and skill on Photography. Furthermore, they also get to reflect themselves every week after went through every activity. This is an on-going process that will sharpen or develop progression photographic skills by students that show in Table 1.

Table 1. Feedback from the participants that felt that they benefited from the online resources.

Participant	Feedback
1	Overall, I think it is a module really worth taking, because not only did I gain photography and photoshop skills, I also got to explores to places that I never thought I would have visited.
2	I can experience how photographer take picture while eating and under a hot sun which is quite interesting, fun and tiring at the same time.
3	It is nice to experiment and find your style.
4	I learnt a lot through all the tutorial activities that I've experienced myself in class. By experiencing it myself, I gain more knowledge and skill on Photography, and also experience many first time in these activities. I also get reflect ourselves every week after every activity that I've done.
5	I enjoy the process of learning through experience as I think we can learn more in-depth and understand the practical application.
6	As we had hands-on activities to perform ourselves, therefore it is an out-come based learning.
7	There is a combination of all in this module.
8	The lecturer allowed us to practice and experiment with different photography equipment and activities at our own time and pace.

However, 6.3% students prefer face to face instruction as they wish to assured performances toward the exercise assigned and gain instant feedback. The other will prefer virtual class only during an emergency. Table 2 indicates the feedback of students that prefer F2F.

Table 2. Participants' preferences toward face to face class compared to a virtual setting.

Participant	Feedback
1	In class it is easier to ask confirmation from lecturer rather than guessing the assignment given
2	As this kind of practical subject is a MUST as physical exercises are very important and much easier to understand, because we get to experience hands-on exercises. I do not support virtual learning as it is harder for students to learn because some students will not take it as serious as compared to physical class. Blended learning is still ok as sometimes the lecturer might have an emergency schedule to attend or have crashes with holidays, but I still would not recommend having an-all blended/virtual class for this subject.
3	I prefer when there is a lecturer present because I can clear all doubts instantly.

91.7% of students think that a photography module shouldn't restrict to be in a conventional classroom setting. Under the U-learning approach, students enjoyed the experiential learning where it is hands-on learning by the applied different setting of camera features to achieve the different outcome during the learning process. In alliance with the blended learning such as provide self-blend learning, rotation learning that engage technology tools Web 2.0 or other collaborative online tools that embed within our Learning Management System (Moodle) and etc. It enticed creativity with different environment setting that engages continual learning experience due to its versatility and portability. This also helps to develop students with skills in information management, understanding and questioning, critical thinking and knowledge application.

Furthermore, participants also benefited from both the blended learning and virtual setting as shown in Table 3.

Table 3. Participants benefited from both the blended learning and virtual setting.

Participant	Feedback
1	For independent and self-learning, as well as detailed guides to instruct a step by step play on how to replica a certain technique or photo.
2	These there blended learning are easy to conduct, it saves times, and student can experience themselves with the hands-on activity.
3	Self-blended learning, rotation blended learning, project-based learning.
4	Flex blended learning.
5	Photography mostly consists of experimental activities and it takes a lot of trial and errors to achieve good outcome. Hence, I feel that most activities should be done outside the class.
6	In class feels too cramped up and photography is meant to be done outside so that students can allow their creative minds to work.

Most of the students preferred blended learning as it saves times, and enable them to enjoy their own pace to perform trial and error experimental beyond the conventional classroom setting which is more flexible, rotation to exhibit their creative minds.

6. Conclusions

The results of this study indicate that the effectiveness of U-learning to maneuver a greater level of authenticity in canons of photography and also the real world relevancy for photography students. Furthermore, the internet and online resources support both expressive and influential activities, as well as ordinary interactions [21]

In conclusion, the results from the study imply that the integration U-learning approach has a positive and mediating effect on both the photography knowledge and competency in their learning experience and relevance toward the industry standards.

As an educator, we believe that there is a need to redesign the module curriculum that allows an interest in the learning process so that it helps in the development of 'employability'. Photography is a popular field with numerous opportunities for students who want to work either independently or as a staff photographer for an employer. We believe that 'the development of skills enable individuals to find and remain in getting a job that is interwoven and attends to the requirement of employers. This pattern has prepared students for future learning and generates new learning (generative learning) after the learning situation itself.

The U-Learning approach with the incorporation of online elements (Moodle, Cloud, E-journal, videos, wikis) that replaces part of the on-campus traditional activities enable students to experience web-based teaching of photography compared to face to face instruction. It improves student knowledge and competency with their overall undergraduate education to meet objectives or learning outcome that would not have been possible to achieve because of class time limitations and the definition of the module as practical by nature that can deliver best with U-learning. This underpins the need for photography module to demonstrate the positive significance of high-impact educational practices and their impact on student retention where the educator ensures an inclusive learning experience with the U-learning approach as a new multidisciplinary approach in the studies of photography.

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