IMPLEMENTING AN ONLINE PHOTOGRAPHY COURSE AT THE UP OPEN UNIVERSITY: CONVERGING ICTs TO ENHANCE STUDENT LEARNING OUTCOMES AND ACHIEVEMENTS

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ABSTRACT

The Bachelor of Arts in Multimedia Studies (BAMS) program of the UP Open University (UPOU) expects its graduates to attain both theoretical and practical knowledge regarding the field of multimedia and ICT. Facilitating skills-oriented learning commonly involves a hands-on approach. While it was the initial intention to deploy production courses in residential mode, the realities of UPOU's student demographics prohibit its implementation. In turn, these courses must be deployed in such a way that it would be possible for students to take the entire course online and perhaps level the playing field with the students who are able to more often interact face to face with the course facilitator through the use of various tools and methods for online learning. This study documents the implementation of one such course: Photography in Multimedia. The study also looked into the socio-demographics and performance of the 37 students enrolled in the course during Summer2010 and how it relates to the level of class participation of the student based on the model/ICT employed. The students were also asked to accomplish a survey at the end of the course regarding course implementation and ICT use for learning. Results showed that while majority of the students considered face to face sessions as beneficial, poor academic performance could not be attributed to failure to participate in these sessions. By the end of the course, all 37 students cited self-improvements in different aspects of photography, most notably the awareness of principles and technical know-how. Results of the facilitator's assessment alluded to the same finding. It is therefore concluded that while face to face sessions remain as an invaluable tool in handling a production course, it is still possible, through the use of various tools, for a student to learn and even excel in a fully online mode.

Key words: blended learning, learning outcomes, multimedia, online, photography.

The UP Open University has always aimed to provide quality higher and continuing education to Filipinos through open and distance learning. The Bachelor of Arts in Multimedia Studies is one of the newer programs offered by the university which expects its graduate to attain both theoretical and practical know-how with regards to the field of multimedia information and communication technologies. A key component in the BAMS curriculum is a set of courses focusing on the practical side of the program. These production courses require students to gain technical skills in fields such as text, graphics, audio, photography and video and how to deploy them as multimedia products. Teaching or facilitating skills-oriented learning such as a

photography course is commonly taught face to face or in residential mode. The facilitator is hands-on with the students in guiding them to develop their skills.

While it was the initial intention for the BAMS program to deploy these production courses in residential mode, the realities of the student demographics prohibit its implementation. There is no other choice but to design the course in such a way that it would be possible for students to take the entire course online while, as much as possible, level the playing field with the students who are able to more often interact face to face with the course facilitator.

This study was conducted with the following objectives in mind:
1. Build a class profile of learners (including whereabouts)
2. Describe the process of implementing an online production course
3. Assess the level of participation of the students in online discussions
4. Compare academic performance of students based on who are able to attend the face to face sessions and those who are not.
5. Provide recommendations in implementing skill courses online and minimize, if not eliminate, any handicap experienced by learners not benefitting from face to face guidance.

LEARNING THROUGH MULTIMEDIA AND ICT's
There are a number of basic principles underlying all others in using multimedia as a learning tool (Mayer, 2005), among which are:

Multimedia Principle - people learn better from a combination of words and pictures than from words alone.

Split-attention Principle - people learn better when words and pictures are physically and temporally integrated.

Modality Principle - people learn better from graphics and narration than graphics and printed text.

Redundancy Principle - people learn better when the same information is not presented in more than one format.

These principles allude to the idea that while multimedia can be invaluable as a learning tool, how the course was designed and how multimedia is incorporated remain as the primary factors for effectiveness. The presence of multimedia cannot compensate for poor design and pedagogy.

Information and communication technologies with respect to open and distance learning are divided into two categories - hardware and software (Bandalaria, 2007). Tools such as radio, television, telephone and computers compose the infrastructure and hardware component of any ICT system. Hardware is the physical side of a system. Software, on the other hand, is the intangible side of a system. Within the context of computers, software is the collection of programs and data needed to operate the hardware.

It is, however, important to note the importance of the human factor. Software allows the operation of hardware, but ultimately, it's the person using them who will dictate how well they are used. Learners must have a significant level of technical know-how to effectively employ these technologies. Furthermore, these learners must cope by enhancing their current skills and adding new ones as more and more technologies get incorporated in their learning.

In order to effectively incorporate ICT's in any learning environment, Sale (2010) proposed the following design process:
1. Irrespective of the platform or software used, the learning event must be based on good learning design.
2. Good learning design is always grounded on core principles of learning.
3. Core principles of learning must be thoughtfully and creatively applied in relation to specific learning outcomes, learner characteristics, learning environment and resource availability.
4. Various ICT's are incorporated to enhance specific aspects of the learning process.
5. The completed blended design maximizes the affordance of a range of learning modes and mediums.

Sale further emphasizes that when designing a course, details such as how much ICT's are incorporated are not as important as opposed to how these technologies are actually integrated within the course and how effective they are as a whole.

BLENDED LEARNING AND LEARNER INTERACTION
Online learning environments also bear a number of issues affecting its effectiveness from the seemingly simple problem of reading from a digital display as opposed to printed material, the lack of social interaction possibly leading to a negative emotional effect of being physically isolated from the rest of the class, to the challenge imposed by how technical know-how can vary from person to person, or even the occurrence of the Digital Divide.

Blended learning, or the combination of face to face and online modes, is a highly regarded means of course delivery (Percel, Eshet-Alkalai, & Alberton, 2009). Heinze and Procter (2004) proposed a definition as such:

Blended Learning is learning that is facilitated by the effective combination of different modes of delivery, models of teaching and styles of learning, and founded on transparent communication amongst all parties involved with a course.

Harsh and Sadiq (2002) highlighted the importance of interaction for the success of students as learners. This interaction allowed for the exchange of ideas usually coming from different perspectives, enabling learners to realize a broad and comprehensive take on any subject tackled in class.

Peters and Armstrong (as cited by Peters, Taylor, & Doi, 2010) proposed three types of teaching and learning, which also consist of different types of interaction. Type I (teaching by transmission, learning by reception) focuses on individual learning with the teacher as the

primary source of information. There is little regard for student-student interaction. Type II (teaching by transmission, learning by sharing) introduces student-student interaction. Even though the teacher is still the primary source of information, students are allowed to share information and experiences with classmates regarding the subject matter. Type III (collaborative teaching and learning) involves a considerably higher level of interaction. The teacher actually becomes a member of the class while acting as a facilitator and participates in the activities along with the students as they fulfil course requirements.

METHODS

This research is a case study regarding Multimedia Studies 173 (Photography in Multimedia). This is a production course originally designed to be a course offered in residential mode. However, subsequent discussion with the members of the UPOU Faculty of Information and Communication Studies led to the decision to make minor revisions to allow off-shore students and those based outside the Los Baños and Metro Manila areas to take and complete the course in online mode.

MMS 173 was deployed for the first time during UPOU's summer schedule from March 27 to May 29, 2010.

Class Profile

Most of the courses in the university have a mix of students based across different parts of the Philippines, as well as those based in other countries. MMS 173 is no different.

This particular class started with 39 students and ended with 37. Of the students who completed the course, four resided in the Visayas-Mindanao area and another four were located in different parts of the world outside the Philippines. The rest were based in the Luzon area and were able to attend at least two face to face sessions, seven of which were full-time students. Ten admitted to already have prior experience in photography, either as an enthusiast or a semi-professional.

It is unavoidable for photography gear to play a significant role in the entire learning process. With no university-issued equipment, all the students needed to use their own cameras. While it was not a course requirement, 25 out of 37 students made use of DSLR (digital single lens reflex) cameras which they either owned or had immediate access to.

Teaching Method

Multimedia Studies 173 is primarily an online course and was designed as such. A number of books, web articles and videos were employed as reference material. The course covered a wide range of photography-related topics, from the design theory to composition and exposure to production of multimedia products based from photographs. The course outline is shown in Figure 1, with an allotted time of eight weeks to cover.

The class participants fulfilled an assortment of requirements in the course, namely:
1. online discussion participation
2. assignments

3. self-assessment through blogging
4. a final examination
5. a group project (production of a multimedia package)

These requirements acted as the parameters for measuring student academic performance.

The primary platform used for learning was MOODLE, an open source learning management system employed by the UP Open University since 2007. This was the venue for all online discussions and submission area of assignments and the final exam. However, system limitation led the course facilitator to opt for an external tool for blogging. The learners were allowed to choose their own venues for their blogs, such as WordPress, Multiply, Blogger or even their own personal websites.

In addition, a number of optional face to face sessions were also scheduled to augment the participants' learning experience. Most of the Luzon-based students regularly attended. However, in an effort to level the playing field, audio and video recordings of the important parts of these sessions were made available to the people who were unable to physically attend.

While not graded, conducting these face to face sessions effectively divided the class into two general groups – those that took the course in blended mode (students based in Luzon), and those that took it in full online mode (students based in Visayas, Mindanao and outside the Philippines). This, in turn, became the basis of the actual groupings of the students for their project. A total of eight groups were formed with varying number of members. One of these groups consisted of four students from the Visayas and Mindanao, while another consisted of four students from outside the Philippines (namely Japan, the Kingdom of Saudi Arabia, South Africa and the United States).

Class Survey

The students accomplished a survey which allowed them to evaluate the course and how it was handled, as well as provided their own insight on how to improve the course. The actual questions of the survey were designed to let the learners both quantify and qualify several aspects in the course – from the improvement of their photography skills through the course, effective use of multimedia and ICT's in the delivery of the course, comprehensiveness of their evaluation, to the identification of the strengths and weaknesses of the both the course design and the facilitator.

While it was bundled with the final exam, the students were under no obligation to answer the survey.

RESULTS AND DISCUSSION

Academic Performance

The class started with thirty-nine students. However, two students were dropped from the class due to lack of participation from the beginning. All the remaining thirty-seven students

passed the course. The UP Open University employs a numerical grading system with 1.0 as the highest possible grade and 5.0 as the failing grade with 3.0 as the lowest passing grade. The class overall had a mean average grade of 1.88. The highest mark earned was 1.25 while the lowest was 3.0. It is important to note that in most cases, low overall scores resulted from negligence, or failure to submit all requirements, not from poor performance per se.

Prior photography experience did not guarantee higher grades. The ten students regarded to have had such experience had an average grade of 1.85, with only five of them surpassing the overall class average. Using a DSLR in class was no guarantee either. The 27 students with such cameras had an average grade of 1.85 as well. Furthermore, the class topnotcher was not among these 27 students. These two observations lead to a conclusion that neither previous experience nor superior gear is required to excel in the course.

Dividing the class into students who effectively took the course in blended and online mode, however, revealed additional findings. The 29 blended learners achieved a mean average grade of 1.81, as opposed to 2.12 for the eight full-online learners. The class participant who earned the highest grade in class was among the blended learner group. This first offering of the course exhibited a tendency for blended learners to achieve higher grades than full-online learners. Comparing the blended learner mean average grade with the overall class average yields a less appreciable difference.

Survey
A total of 33 out of 37 students answered the survey. The following are the results:

1. Improvement of photography skills
    There is an indication that there is a perceived improvement in all respondents with their photography skills after going through the course. It is interesting to note that improvement does not immediately reflect on four of the respondents as they rated themselves of the same numerical level from the start to the end of the course. However, their additional remarks indicate otherwise. Two of these four students remarked that while they believed they had achieved some improvement, it still wasn't enough to achieve a higher level (from poor to fair). The other two respondents claim to have had their skills worsened upon the realization that they had no regard for the principles behind photography in the past. However, the realization of shortcomings they were unaware of prior to the course - developing awareness towards theory and principles – is already an improvement by itself.

2. How the students improved
    All respondents claim an improvement in their skills. Fifteen attribute this through the practical and technical aspect of the course – composition, exposure, function and operation of photography gear, and post processing techniques. Eight respondents specifically attribute it to their exposure to the theoretical aspect of the course – principles and fundamental skills. Four respondents explicitly claim general improvement in both aspects. These indicate the importance of a balanced coverage of the theoretical and practical aspects of photography, as well as the effectiveness of the course's execution.

3. Level of interest in the course
   Students were asked to gauge their level of interest throughout the duration of the course. On a scale of 1 (lowest) to 5 (highest), survey results yielded a mean average of 4.3

   Photography, by itself, is generally a very interesting field to begin with. Therefore, it is not surprising for most of the students to have an initially high level of interest in the course. The challenge, therefore, is for the facilitator to sustain this enthusiasm throughout the course. The survey indicates the facilitator's success in doing so.

4. Effectiveness of the teaching method in enhancing the learning experience
   Several aspects of the teaching method were cited by the students as being responsible for facilitating the improvement of their photography skills. Respondents explicitly cited the means of course delivery – from the comprehensiveness of the course guide, to the level of interaction among students to the adoption of blended learning mode for many of the students. Respondents also cited the approach taken by the facilitator throughout the course. Feedback indicated that taking a more active hands-on and personalized approach is invaluable in effectively handling a course focusing on practical skills.

5. Sufficiency of the allotted time period
   One of the first issues thought about during the development of the course was the time frame allotted. Summer classes last for roughly two months. Considering the mode of teaching, there were doubts of whether or not all the topics will be sufficiently covered. While all the modules were discussed both in the face to face sessions and the online forums, the class was divided regarding the sufficiency of the allotted time - seventeen respondents believed two months were enough, while sixteen did not.

6. Incorporation of multimedia content
   A variety of materials were employed for the course. A printed book was designated as the primary reference for the course. But while it would undoubtedly be invaluable to the learning experience, there are so many other available printed and online references that can make it possible for students to excel in the course. The primary medium for discussions was, of course, the online forum. Aside from discussions initiated by the facilitator, a variety of external online video and text-based tutorials were employed. These online discussions were augmented by the aforementioned optional face to face sessions.

   Students were asked to scale how well these materials were incorporated (1 = Poor, 2 = Fair, 3 = Good, 4 = Very Good, 5 = Excellent)

   Out of the thirty three respondents, twenty six gave the course's employment of multimedia content a very good to excellent rating. On the other hand, one respondent gave the course a fair rating, and justified it by saying that the audio recordings of the first face to face sessions were not followed up with recordings from the succeeding sessions. This, however, is not true. Video excerpts of the following face to face sessions were made available in the course site.

7. Sufficiency of assessment tools
    The feedback was unanimous. The course requirements set by the facilitator were sufficient to effectively assess the academic performance of the students. While a number of respondents alluded to the course having more than enough requirements, there was also a certain level of acknowledgment of their effectiveness in keeping students in track throughout the course. One respondent remarked how the blogs from co-learners became a tool of motivation for self-improvement.

8. Effect of face to face sessions in student performance
    For this item, it is important to note that of the thirty three respondents, twenty six of them were able to attend at least two face to face sessions, being based in Luzon. The remaining seven were based either in the Visayas and Mindanao region, or outside the Philippines.

    Of the seven respondents from outside of Luzon, five claims their inability to attend face to face sessions as a disadvantage, leading to poorer academic performance and/or improvement of photography skills, while the other two thought otherwise – that their being unable to attend had no effect on their performance. Of the twenty six Luzon-based respondents, twenty three of them claim that the face to face sessions had a positive effect on their performance. The primary reason cited was the more direct interaction with the facilitator and fellow learners. The facilitator can track the improvement of photography skills more effectively through close supervision.

    While there is a minority of respondents who believe the face to face sessions are unnecessary, the survey clearly reinforces importance of direct supervision in a skills-based course.

Whether it is online or residential, a single course cannot turn learners into master photographers. That only comes after a considerable amount of experience. But a well-designed course can direct learners on how to achieve greater proficiency. While the final grades indicate that face to face sessions tend to allow learners to excel further, this study proves that a practical skills course can be effectively facilitated in a fully online learning environment using good practices in course design and pedagogy.

The apparently small academic performance discrepancy of experienced and well-equipped participants from the overall average performance indicated comparable opportunities for learning within the class. This implies the balanced course content and requirements, which is reinforced by the survey results. The assessment tools employed were sufficient by all accounts, the story of how the learners coped to fulfil the course requirements was not fully told. For the most part, lower grades were the result of the inability to comply with all requirements, not poor scores per se. Four out of the eight full-online learners were overseas Filipino workers (OFW's) who had to cope with different time zones and local conditions. An adequate means of qualifying and weighing these conditions can help further in assessing student performance and the effectiveness of the course design and pedagogy.

Results show a tendency for blended learners to have higher grades than full-online learners in the course. However, the mean grade of the blended learners (1.81) is not considerably higher than the overall mean grade of the class (1.88). There is a greater discrepancy between the overall mean and that of the full-online learners (2.12). However, this group of learners is only a little over one-fourth the size of the group of blended learners. It is therefore recommended that actual statistical analysis be conducted to determine the significance of these grade differences once there is available data encompassing a larger sample size.

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Appendix

Unit I. Learning How To See

       Module 1   The Image and its elements
       Module 2   Principles of design

Unit II. Defining Photography

       Module 3   Brief history
       Module 4   Analog and digital photograph

Unit III. Making The Image Permanent

       Module 5   Types of cameras
       Module 6   Parts and functions of the camera
       Module 7   Film, storage and print

Unit IV. Composition And Exposure

       Module 8   Composition
       Module 9   Exposure

Unit V. Post Processing

       Module 10   Introduction to post-processing
       Module 11   Basic post-processing techniques
       Module 12   Incorporating Photographs In Multimedia Projects

Figure 1. Multimedia studies 173 course outline.