ENCOURAGING USER PARTICIPATION IN BLENDED LEARNING: COURSE REORIENTATION

Alea M. Fairchild

KU Leuven Campus Brussels, Warmoesberg 26, 1000 Brussels, Belgium

ABSTRACT

Blended learning, structured as a combination of traditional course instruction and additional supporting multimedia course content, can be used in higher education for a variety of reasons. In the case study that we examine, the introduction of blended learning was initiated three years ago with the purpose of creating more resources for coach-student interaction for a heterogeneous graduate student group. However, course results from this academic year have shown a disengagement of the users from the course materials and a reduced number of students submitting the final work for the course. In this research-in-progress, we are exploring why the students have stopped engaging with the course materials at midterm and will try to address how the course could be reoriented to better meet its objectives.

KEYWORDS

Blended learning, course design, engagement, structure, orientation.

1. INTRODUCTION

Blended learning is an integration of face-to-face and online learning experiences; it is not just finding the right mix of technologies or increasing access to learning, although a secondary outcome may be increased efficiency and convenience for students and professor (Garrison & Kanuka 2004). There is evidence that blended learning has the potential to be more effective and efficient when compared to a traditional classroom model (Heterick & Twigg 2003, as cited in Giannousi et al. 2009); Twigg 2003).

The specific problem this research is addressing is the case of a graduate level course where blended learning was introduced for purposes of both effectiveness in meeting student needs and efficiency for a growing programme from a scheduling perspective. Assessment of the course is done via four learning activities, a draft submission of the thesis proposal, and a final submission of the thesis proposal which is graded on a pass or fail basis.

Through assessment, educational strategists can determine how effective their lessons are in teaching students the intended facts and skills (Ballera, Lukandu & Radwan 2014). Assessment designs can greatly influence the learning of the students. It can also be a tool for data gathering and the results gathered can help teachers decide on the performance of the students (Scalise & Gifford 2006). In this case, the assessment activities gave us insight into what level of engagement the students had with the interactive course, and at what point the students stopped interacting with the course materials. In compared to years prior to the structural change for blended learning, we have been losing effectiveness in a lack of engagement.

In seeing both the decline in submissions of the final proposal, as well as a decline in course usage, we determined that the course structure as it is currently is not meeting the objectives of the course in the graduate programme, and that we needed to assess structurally what is not working and how we can reoriented the course structure to better meet the needs of the programme and the students.

This research-in-progress paper is structured to explain the nature of the problem, highlight what literature and tools we will be using for the analysis, and what initial findings we have established as to how to rectify the situation for the coming academic year.

2. LITERATURE REVIEW

The loss of motivation and engagement of students for blended course have been extensively discussed in the literature. Although blended learning offers various advantages in higher education settings, many studies have shown that blended learning also has many disadvantages. One of the biggest problems in blended learning is to maintain students' engagement and motivation throughout the course (Holley & Oliver 2010). In order to decide which factors decide students' engagement and motivation for blended learning, it is necessary to identify blended learning components.

According to Holden and Westfall (2010), there are three main components in blended learning that affect students' learning outcome and satisfaction: instructional, media, and learning environment components:

- 1. Instructional Component: Used to choose the most appropriate instructional strategies to support the learning objectives. In other words, instructional strategies are the products of learning objectives and ensure the learning objectives to be attained. Therefore, instructional quality is crucial to attain students' learning outcome.
- 2. Learning Environment Component: A learning environment can be synchronous or asynchronous and aims at ensuring the most optimum use of resources to achieve the instructional goal and learning objectives.
- 3. Media Component: Media are vehicles that deliver content of instruction.

Reigeluth (1983) provides specific illustration of instruction design: "The discipline of instructional design is concerned primarily with prescribing optimal method of instruction to bring about desired changes in student knowledge and skill" (p.20). Instructional outcome is the way to evaluate whether the instruction enhances students' learning and reaches the purpose of the course design. Instructional outcome are classified in three categories:

- 1. The effectiveness of instruction, measured by the level of student achievement (defined in various methods).
- 2. The efficiency of instruction, measured by the effectiveness divided by student time and/or by the cost of the instruction.
- 3. The appeal of instruction, measured by the tendency of students wanting to continue to learn. (Reigeluth 1983, p.20).

3. CASE STUDY – PROBLEM OVERVIEW

The graduate programme in question is designed for non-economic academic graduates offering a deep insight into all major disciplines of business economics and management. This programme has an incoming student intake from a very heterogeneous educational background in terms of both previous degree and nationality, and therefore starts with a preparatory term to get all of the students to the same graduate level on several basic subjects prior to their main course work.

The preparatory course *Research Proposal Master Thesis* (RPMT) has been designed to supports the first phase of the completion of a master thesis. The course was developed in 2007-2008 academic year as an introductory course on business research with the purpose of project management for the master thesis. The students must submit a written research proposal where they identify a research question and draft, develop and complete a research proposal. Acquiring a critical research attitude is the leitmotiv throughout the course.

The course accounts for 3 credits (ECTS) and is graded by an academic coach using a framework that the students have access to from the beginning of the course. Note that the master's thesis accounts for 15 ECTS and is evaluated by the thesis supervisor. There are eight coaches for the course and each coach supervises from 25 to 30 students. Online learning materials such as documents and videos are used to transfer knowledge to students, as well as two actual lectures by the Professor who coordinates the course coaches.

In the current academic year, there has been several challenges as the class size was rather large and there were not enough thesis topics or supervisors initially for the incoming class. We believe this may be part of the lack of submission problem shown in Figure 1.

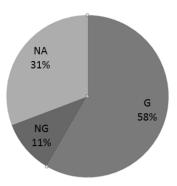


Figure 1. Results of grading students' research proposal for January exam session (G = pass, NG = fail, NA = no submission)

Given its preparatory role, the course is not currently achieving its objectives. Another problem is that many students appear to have reduced motivation for the course. The course materials (online documents, videos, screencast) are useful to assist students to do their RPMT submission; however, after the deadline for submitting their provisional research proposal at midterm, most of the students neglected the course as shown in Figure 2.

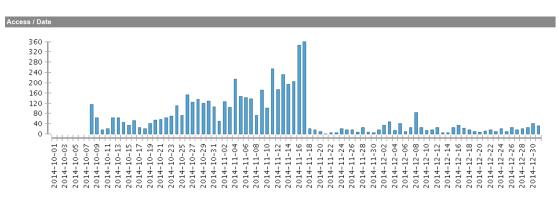


Figure 2. The frequency of students accessing to the course materials

4. RESEARCH APPROACH AND METHODOLOGY

Given the problems discussed with the course, the research questions are designed to address two issues:

- 1. What are the problem(s) with instructional design of this course that may cause the disengagement?
- 2. How can this course be therefore redesigned in order to achieve its objectives?

In order to address these questions, the initial methodology has been document analysis to analyze the course materials (texts, website, videos, and screencasts). Merrill First Principles of Instruction is being used as the theoretical framework to evaluate the course and design intervention to address problems because many researchers have shown that First Principles of Instruction can enhance students' learning outcome, engagement and satisfaction (Frick et al. 2007; Gardner 2011).

These are descriptions of Merrill First Principles of Instruction principles:

- Problem-centered: Learning is promoted when learners acquire skill in the context of real-world problems or tasks.
- Activation: Learning is promoted when learners activate existing knowledge and skill as a foundation for new skills.
- **Demonstration:** Learning is promoted when learners observe a demonstration of the skill to be learned.
- Application: Learning is promoted when learners apply their newly acquired skill to solve problems.

• **Integration:** Learning is promoted when learners reflect on, discuss, and defend their newly acquired skill. (Merrill 2012, p.21)

5. CURRENT STATE OF RESEARCH

The first step was a meeting with the course professor to go through a structured interview using the framework of Merrill's First Principles of instruction. The two items which were not positive were:

- Does the instruction require learners to use their new knowledge or skill to solve a **varied sequence** of problems or complete a varied sequence of tasks?
- Does the instruction provide techniques that encourage learners to integrate (transfer) the new knowledge or skill into their everyday life?

After structured interviews with the professor of the course and examining the course materials and reviewing the literature, the initial assessment using the framework of Holden and Westfall (2010) is that the course encounters problems with instructional design such as the effectiveness of instruction and the appeal of instruction (Reigeluth 1983) which hinder the course to achieve its objective.

The faculty members involved in the course are now working to examine how to redesign the instructional components, including shortening the videos and renovating the content to reframe the knowledge and skills provided to better resonate with the students. This will be discussed during the conference presentation.

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REFERENCES

- Ballera, M., Lukandu, I.A. and Radwan, A., 2014. Improving Learning Throughput in E-learning using Interactive-Cognitive Based Assessment. *The International Journal of E-Learning and Educational Technologies in the Digital Media (IJEETDM)* 1(1): 32-49
- Frick, T., Chadha, R., Wang, Y., Watson, C. and Green, P., 2007. Course Evaluations: How Valid Are They? Unpublished manuscript, Bloomington, IN.
- Gardner, J. L., 2011. How Award-winning Professors in Higher Education Use Merrill's First Principles of Instruction. *International Journal of Instructional Technology and Distance Learning*, 8(5), 3-16.
- Garrison, D. R. and Kanuka, H., 2004. Blended learning: Uncovering its transformative potential in higher education. *The internet and higher education*, 7(2), 95-105.
- Giannousi, M. et al., 2009. Students' satisfaction from blended learning instruction. In TCC-Teaching Colleges and Community Worldwide Online Conference, Vol. 2009, No. 1, pp. 61-68.
- Holden, J. T. and Westfall, P. J., 2010. Developing a blended learning strategy: An instructional media perspective. *Journal of Instruction Delivery Systems*, 24(1), 16-23.
- Holley, D. and Oliver, M., 2010. Student engagement and blended learning: Portraits of risk. *Computers & Education*, 54(3), 693-700.
- Merrill, M. D., 2012. First principles of instruction. San Francisco, CA, Pfeiffer.
- Reigeluth, C.M., 1983. The elaboration theory of instruction. In C.M. Reigeluth (Ed.), *Instructional design theories and models: An overview of their current status*. Hillsdale NJ: Lawrence Erlbaum.
- Scalise, K. and Gifford, B., 2006. Computer-Based Assessment in E-Learning: A Framework for Constructing "Intermediate Constraint" Questions and Tasks for Technology Platforms. *Journal of Technology, Learning, and Assessment*, 4(6).
- Twigg, C. A., 2003. *Improving learning and reducing costs: Lessons learned from round I of the PEW grant program in course redesign*. Center for Academic Transformation, Rensselaer Polytechnic Institute. Troy: NY.