

Transforming an online course to blended and student centred learning

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Introduction

Blended learning provides great opportunities to integrate face-to-face classroom synchronous verbal and online asynchronous written communication to achieve deep learning through construct meaning and confirm understanding through discourse. Garrison and Vaughan (2008) suggests using Community of Inquiry (CoI) framework to guide blended learning designs, which highlights the importance of interactive (social) and reflective (cognitive) dimensions of higher educational experience. We probably should not cover too much content by reading or lectures as too much content may become barriers for deep learning; and most importantly, students need time to process content and reflect upon. It is also found that face-to-face learning experience can enhance connectedness and satisfaction (Conrad, 2005).

The course “Tropical Forests, People and Policies” is a 7.5 ETCs credit master course. It provides an introduction to essential contemporary issues in forestry in developing countries. It takes a people oriented approach to issues that all natural resources managers in developing countries should be familiar with. Emphasis is on the relationships between people and forest use and conservation in developing countries. The aim is to give students a thorough understanding of the current and potential role of forests and trees in improving rural livelihoods. It is stressed that forestry is an integral part of society and should not be considered in isolation. The course had been a purely online-based course for the past 8 years. Main components of the online course include: i) quizzes after reading mandatory material;

ii) e-tivities for group discussion on specific key topics in the online forum; and iii) tutor marked essay assignments with written feedback and comments. This year (2018), we plan to transform it into a blended course, which contains both classroom and e-learning components.

Transforming a purely online course to a blended learning that combines both face-to-face classroom sessions and online learning activities, the key question would be “how to employ different learning environment and communication medium to enhance student engaged learning experience”. There are two specific problems to be addressed:

- According to the course evaluation, students feel overloaded with reading materials and online activities. How to avoid content overloading without compromising intended learning outcomes?
- Asynchronous written communication in online group discussion e-tivities were quite effective in promoting critical thinking through collaborative work. However, students may still feel lack of social presence. How to take advantage of face-to-face classroom sessions to promote a stronger sense of community, and interactive and collaborative learning?

Method

To ensure the effectiveness of the transformed blended learning course in promote students’ learning (ILOs) and satisfaction, the proposed composition of the blended learning course include:

- Online:
 - 1) **Self-learning**: fewer core readings followed by multiple-choice questions to test students’ understanding of terminology and contents.
 - 2) **E-tivities**: facilitated group discussions of a key topic in an online forum.
 - 3) **Teacher marked assignment**: individual essay assignment submitted online, detail feedback provided by teacher and uploaded for students’ access.
- In class:
 - 1) **Interactive lectures**: lectures with interactive student activities and discussions.

- 2) **Group exercise:** a practical problem oriented group exercise, followed by group presentation and plenary discussions.
- 3) **Wrap-up session:** open and facilitated discussions regarding key points learnt in the module, Q&A, and module assessment against the weekly ILOs.

Besides assessing the effectiveness of the composition and various elements of blended learning activities, a specific intervention on reading addressing the first problem mentioned above - *guided reading questions*, was designed, implemented and evaluated. Students were provided a list of key questions for each reading material that aims to guide and engage students in active and reflective reading, followed by collaborative group exercises and interactive discussions in class.

Results and Discussions

A participatory online-based student evaluation for various learning activities with a scale of 0-10 were conducted at end of the last in-class session of the course (see results in the figure below), followed by some open discussions on specific interventions, particularly on the guided reading questions.

Rate the activities/elements in promoting your learning experience and outcome?

Mentimeter



13

Fig. 10.1.

The intervention of *guided reading questions* was rated high, and 5 out of 13 students gave it 10 scores. Students found the guided reading questions particular useful for connecting the key learning points of a module as well as between the literatures, and one student also mentioned that it guided the reading process and actually saved time for reading. Effective reading before lecture ensures active student participation and achieving intended learning outcomes (McGinn et al., 2015; Hwang et al., 2011; Moravec et al., 2010). However, not all of the students read all the required material pre-lecture that has been reflected by previous studies (Hiener et al., 2014; Hobson, 2004). The consequences of this was reflected in the group exercises and discussions in the class, some students need to read first in class before they engage in any discussions or exercises that eventually prolong the whole process of the group work. Another learning activity reflecting lack of pre-class reading is *quiz competition*, where quite a few students end up with guessing the answers of the key terminology and they could not participate in the further discussion afterwards. This lead to ineffectiveness of classroom learning and demotivation of students. One way of ensuring effective pre-lecture reading is to have pre-lecture activities (e.g. pre-lecture quiz, and online discussion) as implemented by my colleague Solomon, where he find some positive results. Another approach could be having informed follow-up learning activities regarding the guided learning questions or reading material in the classroom sessions.

Classroom discussions was another activity rated high in the evaluation, as well as in class exercises. Students were also provided multiple opportunities to engage in discussions regarding the course content and material, and they actively asked questions and acquire teacher's inputs on particular content throughout the classroom sessions. And students found it is quite effective with an *interactive wrap-up session* with key questions, where students were first asked to discuss and reflect on those questions on their own, followed by inputs and summaries from the teacher. In general, students were actively participated in the group exercises in class and follow-up discussions; the most challenging part is that it is often time consuming for group work, especially if some of the group members did not read required material in advance. Even though it is often get delayed with group work or students always complained or demanded for more time, they often found the process of in class group exercises useful and fulfilling in achieving ILOs, I believe part of it is also attributed to the social dimension of the learning environment. One of the particular experimental activities was *Debate* on a key topic in a module, it demonstrated that it can

effectively activate and engage students in critical thinking and reflection of key learnings.

Surprisingly, students prefer classroom exercises and discussions rather than online based discussion (*e-tivities*), while asynchronous written communication in online group discussion e-tivities was found quite effective in promoting critical thinking through collaborative work. However, *teacher marked assignments (TMA)* was ranked the highest, indicating that students value individual written discourse a necessary and effective approach for achieving learning outcomes. In contrast, *group project* (particularly on the writing project) was rated the lowest (6.1 out of 10), and it's largely due to the challenging nature of the subject itself as well as group dynamics. However, different groups managed and performed the assignment quite differently and the quality of the final products vary much. This implies more facilitation and simplification of the group project is needed.

Conclusion and reflection

The transformation of online course to blended learning is proven to be useful and effective. According to the final course evaluation, 26 (of 27, 1 sick) students attended the exam with an average grade of 8.5 (last year: 5.9), ranging from 2-12; failure was 0% (last year 7%). And the course has been evaluated as Category A course. However, there are still many challenges and room for improvement especially regarding workload and promoting student-centred learning. Possible action points for improvement include:

- Develop reading guide for each module including short summary indicating the linkages of the readings and guided reading questions (that is also in a way to reduce the workload for students by facilitating the reading process).
- Explore further with learning activities that excite and activate student critical thinking and reflection, such as *debate*.
- Conduct writing workshop and peer-feedback process for the first writing assignment (TMA1), plus a possible in class discussion and feedback session on TMA1 after grading.
- Balance the class and online learning activities, considering the overall workload and learning outcomes, as well as diversity and variation of learning activities.

- Utilize after class time more effectively, design some of the group exercises across the two class sessions to allow students to get better preparation. (In addition, it is possible to designate Tuesday afternoon 16.00-17.00 for group work, since afternoon class often ends by 16.00.)
- Encourage and facilitate more of the shift from teacher led to student-centred wrap-up discussions progressively, and hopefully students would feel more comfortable to take the leading role and ownership to hone their learning outcomes.

References

Conrad, D. (2005). Building and maintaining community in cohort-based online learning. *Journal of Distance Education*, 20(1), 1-20.

Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: Framework, principles, and guidelines*. John Wiley & Sons.

Heiner, C. E., Banet, A. I., & Wieman, C. (2014). Preparing students for class: How to get 80% of students reading the textbook before class. *American Journal of Physics*, 82(10), 989-996.

Hobson, E. (2004). Getting students to read: Fourteen tips. Idea Paper No. 40, KS: Kansas State University. Center for Faculty Evaluation and Development.

Hwang, W. Y., & Hsu, G. L. (2011). The Effects of Pre-Reading and Sharing Mechanisms on Learning with the Use of Annotations. *Turkish Online Journal of Educational Technology-TOJET*, 10(2), 234-249.

McGinn, N. F., & Schiefelbein, E. (2015). Getting students to read before class: Innovation in a university in Chile. *Prospects*, 45(4), 447-464.

Moravec, M., Williams, A., Aguilar-Roca, N., & O'Dowd, D. K. (2010). Learn before lecture: a strategy that improves learning outcomes in a large introductory biology class. *CBE—Life Sciences Education*, 9(4), 473-481.