GUIDING STUDENTS TO BECOME LIFELONG LEARNERS: FLIPPED CLASSROOM AND MEANINGFUL PARTICIPATION IN A BLENDED-LEARNING ENVIRONMENT

Teemu Leinonen, Eva Durall, Aalto University, Finland

Abstract

In this article we present a good practice of combining several teaching strategies such as blended learning, the flipped classroom and self-directed study activities in a MA level course, with the aim of helping students develop lifelong learning skills. We report how we adopted the flipped classroom model in several editions of the *Introduction to Media Art and Theory* course through the organization of fishbowl discussions with the students about the homework assignments they were asked to prepare before the classes. The course final assignments consisted in a video essay that the students had to produce in small groups and present to the class. The video essay required students to do research, define a research question and develop a critical attitude towards the topics explored. We analyzed the students' feedback as well as the video essays submitted by the students in order to assess if the course provided them a meaningful learning experience and if it helped them become lifelong learners. We conclude that the course achieved the intended goals and that it represents a valuable case to discuss among the educational community.

Introduction

The research and development of online and e-learning can be categorized to be lead by two different paradigms. The first one emphasises access and productivity of education. Online learning environments and use on online content, tools is seen to provide possibilities for more students to take part in education. MOOCS are a good example of this. Within a MOOC anyone with an internet connection may take courses of the world's top universities. The other, with less media coverage, vision, has been research looking possibilities to improve the quality of learning. In this tradition the qualitative improvement is seen to be more important that making current educational practice more cost efficient. The roots of the vision are in the early days of computer supported collaboration research, such as Douglas Engelbart idea of augmenting human intelligence with networked computers (Engelbart, 1962).

In our online and e-learning research we have followed the later paradigm. In this paper we present one MA-level university course that builds on it. The core idea in the design of the course has been to be *digital first* with meaningful online activities. When aiming to this we have borrowed from and applied approaches from the flipped-classroom and personal learning. The design of the course has been an iterative process of experimenting with various

practices and activities in the last four academic years during five implementations of the course. We have gathered feedback from the students during and after the course and used this to inform discussions on the course redesign at the planning stage of each new implementation of the course. This way the development of the course has been influenced by participatory action research (Reason & Bradbury, 2008), although the individuals representing the community have changed during the years.

In this paper we start with a compact literature review presenting the idea of flipped-classroom, personal learning environment and self-organizing learning environment. After this we describe the case, the design and the latest implementation of the *Introduction to Media Art and Culture* course. We end the paper with concluding remarks and discussion about the possible value of the research for practitioners and frame possible topics for further research.

Flipped-Classroom and Personal Learning

Research on learning has shown that to develop deep understanding students need to be active participants in the learning situations (Beichner & Saul, 2003; Hake, 1998). Although lecturing can be useful under certain conditions (Schwartz & Bransford, 1998), its use as the main and only teaching method has been strongly criticized (National Research Council, 1999; Knight & Wood, 2005).

The recognition that students construct their own learning and that social interaction contributes to the creation of meaningful intellectual engagement (Vygostky, 1978) has guided the design of alternative methods that foster discussion and collaboration. Furthermore with the group work activity we have aimed to empower students to be teachers in the course by asking them to prepare video essays that are explaining some core content of the course. The video essays have then been screened and discussed within the whole class.

The flipped classroom is a teaching strategy that inverts traditional way of structuring classroom activity with the aim of supporting higher levels of engagement and deep understanding (Strayer, 2012; Lage et al., 2000).While in traditional settings time in the classroom is often used for delivering content from teacher to students and the application of the new information provided usually takes place informally out of the classroom and between the classes, in the flipped classroom the order of these activities is inverted. From this perspective, students are also asked to take responsibility of their own learning, to be active subjects in it. In practice, in a flipped classroom, students are asked to familiarize themselves with the course content in advance the course meetings. Time spent in class is then dedicated to practical applications of the course contents through activities centred on questions, inquiry, problem solving, group discussions and students' presentations.

Although the flipped or inverted classroom has been used by educators for ages, the adoption of information technologies, especially online systems, has created a new scenario in which face-to-face meetings are combined with online learning experiences (Strayer, 2012). This way

there is a connection to the idea of blended learning, emphasising the convergence of face-to-face and distributed learning environments (Graham, 2006). According to Graham et al. (2003) some of most common reasons why educators choose blended learning are the possibility to improve pedagogy, increase access and flexibility and gain cost effectiveness. In the flipped classroom approach, the adoption of blended solutions is oriented towards improving the pedagogical design of the course and therefore, the students' learning experiences.

In 2007, the online and e-learning research community started to discuss about the possibility to have *personal learning environments* (PLE) as an alternative to the *learning management systems* (LMS) that were the dominant underlying technology in the field. The shift from LMS to PLE is related to the rise of new technology, tools and services that made social interaction easier online. Open internet standards, lightweight application programming interfaces (APIs), blogs, micro-blogs, wikis and social networking services were demonstrating how people can work together in the open internet (Poldoja, in press).

Wilson et al. (2007) defined PLE by its difference to the LMS. Whereas LMS is a single system that is expected to provide all the services needed to run and take part in a course, PLE was said to be an open system where central is the coordination of connection between the learners. From the pedagogical point of view, the PLE idea emphasises learner as the central actor in the course, when in LMS the coordination is mainly teachers' task. Therefore, the PLE is asking students to find meaningful content on the topic they are studying and to share it with their peers instead of the teacher providing the content in a LMS.

Johnson and Liber (2008) have seen PLE's to be potentially disruptive to the current system of providing education. They argue that PLE's could radically change the relationship between the providers of education (institutions) and learners (students). In the PLE the model is learner-driven and -centric instead of being provider-centric. When taken to its extreme, the PLE can be a system where learners select their tools for learning, set their own learning goals, decide on the resources used in the studies as well as set evaluation criteria and do evaluation of their learning results themselves (Väljataga & Laanpere, 2010). Bringing PLE-thinking to the university pedagogy is a strategy to keep university education relevant. For universities, which are aiming to educate students with independent research skills, this is also very natural.

PLE can be defined to be planned and organized practices to follow, study and share interesting pieces of information. As a such it can be seen as a way to apply lifelong learning. For children and schools Sugata Mitra (2015) has developed the idea of Self Organised Learning Environment (SOLE) where there are similarities to PLEs. In a SOLE classroom students are asked to study independently big questions that are expected to spark their curiosity. In small groups students are using computers with Internet to search and find information. In the end of the SOLE-session students are presenting their findings for each other. This makes SOLE a student-driven learning environment with the following principles:

curiosity, collaboration, and facilitation through adult encouragement, self-organization, socialization and engagement (Mitra, 2015).

The principles that guide the design of the practicalities and the learning environment where the learning takes place are critical when aiming to have high quality education. In many cases, these principles remain as unquestioned traditions. The tacit knowledge on how teaching and learning should be is easily transferred from one generation to another. The transfer of existing societal conventions and structures in education is sometimes called hidden curriculum. The hidden-curriculum is often seen as an unplanned (or planned) and negative side effect of education. As a teacher in a course we plant – some time intentionally, some time unintentionally – our norms and values to our students. When norm and values are not recognized, neither discussed openly with the student they stay hidden, although having a great impact on the students (Broady et al., 1986).

Behind the flipped classroom, PLE and SOLE we may see a positive hidden-curriculum. By helping students to carry more responsibility about their own study work they may develop curiosity and skills needed in a self-directed lifelong learning. This approach is asking new role and new patterns of behaviour from teachers, too. For instance, the main character in *The Ignorant Schoolmaster* (Rancière, 1991), Jacotot puts it in words as follows: "To explain something to someone is first of all to show him he cannot understand it by himself" (p.32).

Case Study: Introduction to Media Art and Culture

In this study we have taken a closer look at the *Introduction to Media Art and Culture* course. In the following section we explain the course design, the data collected from two latest implementations of the course, as well as results gained by looking precisely how well the course has served to help students to become lifelong learners. Furthermore, from the data we have looked how students felt about the flipped-classroom activities and if the assignments make the study work meaningful for them.

Course design

Introduction to Media Art and Culture is a 3 credit points MA-level course. The course is organized as an intensive lasting three weeks, four days with three hours per day in a classroom. In addition to the 36 hours of classroom activities students are asked to dedicate 45 hours to prepare to the classes and to do the assignments. The number of students is limited to 40 and the course is led by two teachers and one teaching assistant. The general structure is that the first week focuses on media culture and media studies and is lead by the first teacher. The second week is lead by the second teacher who leads students to contemporary discussion about media art. The third week is lead by the students and dedicated to their presentations and discussions about them.

The objective of the course is to introduce central ideas that form both contemporary media art practice and media culture discourse. Within the course students will have pointers for further studies on the topics. The course will cover parts of the book *New Media: A Critical*

Introduction by Martin Lister (ed.) with a number of examples from both media art and media culture studies. For each topic of the course there is a categorized article and video library accessible in the website of the course.

In the course there are two types of assignments which students do between the classes: (a) the homework readings, screening (videos, documentary movies etc.) and a museum/gallery exhibition visit, all are followed by a fishbowl discussion in the class and (b) a study in small groups with results presented in a form of a video essay.

Every classroom session starts with a fishbowl discussion about the homework. In the fishbowl there are four chairs that are located to the middle of the room making a small circle, the fishbowl. The fishbowl is surrounded by large ring of chairs. Three students are asked to come to the fishbowl to discuss about the homework. One chair is left unoccupied. When the discussion starts anyone from the outer ring may come and sit to the free chair. When this happens one of the original three debaters must leave to the outer ring (Figure 1).

Figure 19. Fishbowl discussion in the classroom

The second assignment is done in a group of two to three students. The members of the groups are selected randomly. Each group selects blindly two media art and media culture related concepts, such as *generative art* and *internet*, or *cultural jamming* and *augmented reality*. The study groups' task is to find out about the terms and combine out of them a coherent video essay. The video essay must last about 2-5 minutes with 2-3 minutes of spoken voice over. Students must also deliver the text of the voice over with the list of references. When ready the videos are uploaded to some online video service, such as Vimeo or YouTube.

Data Collection and Analysis

We have collected two types of data from the participating students: (a) open, written feedback where people are free to write anonymously what they think about the course, and (b) the video essays done by the students. Furthermore, as the teachers of the course we have observed and participated in all the course activities, such as fishbowl discussions and the museum/gallery exhibition visit.

The analysis varied depending on the type of data. For the data consisting in the feedback provided by the students (N = 53) we carried out a thematic analysis. We adopted an inductive approach. From the students feedback we generated the codes that were then used to categorizing them. The categories were contrasted with our initial impressions to contextualize and interpret the data. For the video essays, we analyzed the materials submitted by the students according to the assessment criteria provided at the beginning of the course. The extent to which these criteria were met, enabled us infer the competences developed by the students.

Results

With the analysis of the data we aimed to answer three research questions: (a) How did the students feel about the flipped classroom activity? (b) How meaningful and relevant students found the course? (c) Are there any evidences that indicate that the course helped the students become lifelong learners?

The students' feelings related to the homework assignments, which were key in the flipped classroom approach, showed a mixture of perceptions. Although the students made positive comments about the course assignments (62.2%) and appreciated the high levels of participation during the class sessions (62.2%), they also expressed negative views towards the assignments (71.6%). Mostly, students complained that there was little time to do the homework and prepare for the classroom discussions. Our understanding is that it is important explain for the students that the flipped classroom model may increases students' workload from what they are used to. This may help them to manage their time. It is also important to provide the study program in detail with the homework tasks in the beginning of the course, so that students will have more freedom to plan their own time and are not forced to do the homework only between the class sessions.

Over 1 out of 5 students (22.6%) indicated that the overall experience was very positive and that it was a relevant course for their studies. In general, some of the aspects most highly valued by the students were the course contents (30.1%), the quality of the lectures and the diversity of lecturers (45.2%), as well as the assignments (62.2%), which were considered interesting and relevant, especially the readings and the following classroom discussions (62.2%). In relation to the course contents, students were also critical (49%). In the feedback they pointed out topics that they would like to further discuss as well as some redundancies in the content. These comments have been extremely valuable for redefining some of the course topics. The fact that students are able to identify gaps and make proposals, also suggests that they have developed a broad enough and critical view of the course contents.

The course final assignment, the video essay, was conceived as a small self-directed learning activity. The assessment criteria provided at the beginning of the course offered some guidelines that connected with self-directed learning skills such as the ability to formulate elaborated questions, identify what one knows and what one ignores, find relevant sources of information, make connections, be critical and build personal opinions. The analysis of the

final assignments (N = 20 videos) shows that the students were able to define good research questions (65%), use relevant references (70%), make connections (95%) and build personal (80%) and critical (80%) visions of the researched topics. Based on this analysis, we conclude that the course helped the students in developing important skills for becoming lifelong learners.

Conclusions

The analysis of the IMAC course based on the research data shows that the teaching strategies applied during the course – flipped classroom, high levels of participation and self-directed study activities – helped to achieve the intended goals: give the students a broad overview of the field and help them build critical and informed positions. We claim that the analysis of the final assignments shows that students have acquired relevant skills for engaging in self-directed learning. In this regard, we consider that the research brings an interesting case based on the use of the flipped classroom model.

We must acknowledge certain limitations in the study, mostly due to continuous updates and redesigns of the course, which make difficult to make comparisons between the courses' different editions. In addition, further research needs to be conducted in order to proof to what extent the flipped classroom model effectively supports students in developing a PLE-mindset that will help them become lifelong learners. We consider that including the hidden curriculum (positive and negative) debate among the educational community designing and implementing e-learning and blended-learning course is important, since this will have a strong impact on the role of formal education institutions in the future. To stay relevant in the global competition with growing offering of online course, educational institutions must have a vision and ability to implement course that will add value to the learning experience by providing skills to be an independent lifelong learner, such as curiosity, research and group work skills.

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