

A few thoughts on the Flipped Classroom

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There are many ways educators can enhance their curriculum and experiment with new pedagogical models to engage students. There have been numerous studies that have shown improvement as well as the potential for additional success with many of these models. From our own experience, certain classroom settings and topics lend themselves to a particular learning style that may be more advantageous. Experience coupled with keeping up with the literature and research on best practices can be very helpful to create the best learning environment for students. Technology can often greatly enhance the strategies used in and out the classroom and can also greatly enhance access to certain materials. With increased usage of online materials educators can reach a larger number of students as well as facilitate learning far beyond the classroom walls.

One such shift that has been fostered by technology is that of the flipped classroom model of learning. Here instructors can record lectures and/or other instructional materials for dissemination online so that more time can be spent working together on tasks in the classroom though in-class exercises (Educause, 2012). While this same approach could be done with printed reading material, most are using online content. This model allows for exposure to topics at home so that students can work more in-depth on related material in the classroom, which can allow for more in-depth help from peers or the instructor and meaningful conversations. Following this, students can then complete additional coursework at home to help retain information. While this is a very limited description of the flipped classroom concept, there are other terms that often refer to other blended approaches such, as reverse teaching or the backwards classroom. All point to more collaboration and user centred learning

where the goal is for students to take more initiative of their learning via technological sources.

According to Hamdan, McKnight, McKnight and Arfstrom (2013) in a review on flipped learning there are four main pillars:

- 1) Flipped Learning requires flexible environments;
- 2) Flipped Learning requires a shift in learning culture;
- 3) Flipped Learning requires intentional content;
- 4) Flipped Learning requires professional educators.

With a flipped learning methodology, the authors point out main facets via “the pillars” such as the creation of flexible learning environments for material though the usage of multiple learning styles and modes of content delivery. They also point out that the model itself causes a shift in perception of the culture of learning by changing the traditional view of a teacher as only lecturing in class and the student having homework to do at home. The third pillar focuses on the content as being intentional and much planned out in order to maximize time and instruction which also ties into the forth pillar regarding educators. The fourth pillar places emphasis on “professional educators” as being very important in the facilitation of learning in this model and that despite the fact that lectures are recorded they are instrumental in the process despite the flipped role.

The first and most important consideration that needs to be made regarding the introduction of the Flipped Classroom focuses on the students. Fulton (2012) analyses 10 different points, including many that are learner-centric. First and foremost, students can take advantage of accessing educational content reviewed by their instructor at any time, letting them work at their own pace. As a second important aspect, the collaboration between students and instructors during class meetings allows the teacher to better understand the student’s learning style and potential problems with the content. As a third key point, students can have access to content of multiple educators, as most likely the material available to

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them comes from multiple sources. The last advantage that we can notice immediately is the ability for parents to review the material offered to their children, especially in primary and secondary school settings.

This innovative model breaks free from the traditional organization of the classroom, where the teacher is the focus of everyone's attention. This shift is significant because it actually places the content at the centre of attention, promoting the teacher to the role of expert mentor when it comes to discussions and problem-solving exercises. This shift though requires a significant amount of resources on the behalf of the educational institution. Much content is already available online through services such as Khan Academy (n.d.) or Codecademy (n.d.). These services are certainly providing quality content, but especially a delivery framework that is meant to take content, break it into learning objects, and inject them conceptually into any relevant course. The creation of this reusable material requires a significant amount of work, to which some organizations dedicate many resources in the form of personnel and money.

This type of expenditure is acceptable when the business plan is based around such activities, but traditional academic settings are not. This step creates a significant barrier of entry to flipped classroom paradigms with truly original content, which is essential in the success of this model in universities, for example. When a student in the United States or America pays on average \$18,000.00 for a degree (US Department of Education, 2012), they expect to be exposed to original content rather than material that is freely available over the Internet. This argument can be supported in the sense that educators should be capable of investing some time and resources in the creation of their own material, focusing on what is most relevant to the discussions that arise during class or on the topics that seem most difficult to a particular set of students. At the same time though instructors often do not write their own books, which leads to the fact that students already use support material that comes from other sources AND for which they have to pay (often in excess of \$100 per course). The idea that is often forgotten is that the classroom should be the setting for the discussion and elaboration of notions learned, rather than the place where students are just introduced to topics.

In order to make the most out of the idea of flipped education, it is in the best interest of universities not only to include more support for their e-learning resources (personnel, equipment, training, for example) but also to add it to the core of their operations. Shifting the idea of universities from places where students only go to learn, to places where students learn and validate their knowledge under the supervision of valid faculty members would also require a shift in the daily operations. Typical educators working at the college level are typically employed for nine months per year, meet regularly with students, stress about preparing for lectures and labs at the last minute and scramble to find an available assistant who can help them grade 200+ essays.

Instructors should become year-around subject matter experts that drive the innovation by providing content to skilled educators and technologists whose job focuses on supporting faculty by creating captivating learning objects that can be delivered over multiple platforms and addressing multiple learning styles. It is essential that concepts of good education drive the flipping of the classroom (Goodwin & Miller, 2013), making the content delivery method transparent. This would leave more time for faculty members to focus on other aspects of their job requirements still providing exceptional service to students. Of course this is not going to happen overnight, but it is necessary that universities and educational institutions in general start thinking about a paradigm shift that is initiated by a substantial goal: improving the quality of students and optimizing the efficiency of an educational organization's personnel.

While this model has great potential, it will be interesting to see just how many educators experiment with this type of educational style and witness what the long term research shows about content retention and student perception and feedback on effectiveness. As with all pedagogical approaches there is no one size fits all model. The research horizon on educational projects is continually changed and enhanced through technology, and this model just may be one more step towards new research and practices. While the concept of the "classroom" may change in time, educators and the role of the teacher will ever remain important.

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