

Flipping the Classroom in Adult Education: Its Application in Nursing Education

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“The flipped classroom is...essentially reversing traditional order...this approach fits adult education’s values of active learner engagement and self-direction” (Merriam & Bierema, 2014, p. 207). This teaching strategy makes efficient use of the teacher’s time so that he/she can optimize the classroom time. Each student-teacher interaction is focused and individualized to the learner’s needs and there are increased opportunities for collaboration between students. Mindful flipping of the classroom by incorporating the principles of adult learning promotes higher levels of thinking and learning in the Blooms’ taxonomy.

Objective

The flipped classroom maximizes the waxing-and-waning pattern of students’ attention span. The students are supposed to prepare ahead of class by viewing short five to seven minute long videos of teacher instruction. Bunce, Flens & Neiles study in 2010 challenged the previous belief that student’s attention span was ten to fifteen minutes in length (Washington University, 2013). This study demonstrated that attention lapses occurred at 30 seconds, then 4.5 minutes, again at 7-9 minutes and another at 9-10 minutes but typically only for short one minute or less periods (University of Washington, 2013). The most interesting thing about this study was that when students were engaged with active learning methods they had less attention lapses, and immediately following an active learning activity, when the teacher resumed lecturing, students had longer attention spans (University of Washington, 2013). The flipped classroom weaves active learning amongst teacher lecturing to maximize students’ attention span and thus their learning in and out class. After each five to seven minute video the student answers a series of questions based on the content with immediate feedback. This method promotes the mastery of

information more than just a basic understanding of it (Educause, 2012). Classroom time prioritizes active learning and if lecturing occurs it is for very short bursts.

Students can progress at their own pace to maximize their learning. If students are having difficulty grasping concepts they can stop, pause and rewind the videos or seek additional resources to understand foundational concepts before moving on (Educause, 2012). The students that have developed competency can continue to move forward and continue learning rather than being held back until the rest of the students have understood concepts they already understand.

The teacher can prioritize their teaching for the face-to-face classroom time with students. The teacher will be equipped with information about areas of challenge for students and then can provide a short teaching session based on those areas for the whole class or for just a small focus group. The teacher can also encourage collaboration amongst students and pair a student who has mastered a concept with a student who is struggling in that area. Class time can incorporate more creative active learning activities for higher level thinking on Bloom's taxonomy. For instance the teacher can use problem-based learning or have group work so that information can be applied, analyzed, evaluated and created.

Reflective

A lot of the literature demonstrates the flipped classroom being utilized in K-12 classrooms but its application in post-secondary classrooms is very relevant and can be very effective as long as it addresses all six principles of andragogy. In order for the flipped classroom to work the student has to embrace self-directed learning. This is one of the key principles of Knowles' theory of andragogy because as students mature they become more self-directed in their learning (Merriam & Bierema, 2014). The teacher can utilize the other five principles of andragogy to make the learning as rich as possible for the adult learner. I will explore this in more detail in the 'Decisional' section of this journal.

The flipped classroom can be a helpful strategy for students who have difficulties accessing universities or people with language barriers. Students who must work full time or geographically live far from university campuses can benefit from learning the material at home on their own schedule. Many aboriginal people in Canada are geographically distanced from big cities with universities, which is a significant barrier for those students attending class and enrolling in post-secondary institutions. The Khan Academy, a company that promotes its videos to flip the classroom, can for example reach and educate people in rural India or Africa that have many barriers to accessing education (TED Talk, 2013). The ability for students to view videos at their own pace can be a huge advantage for students who speak English as a second language (Educause, 2012). They can pause and rewind the video to ensure they have understood the whole lesson before continuing forward.

As with every exciting new teaching strategy there can be some challenges as well. One difficulty can be if students are not 'buying into' the flipped classroom philosophy. Some students might feel resentful and wonder what they are paying for because they do not value the time spent in the classroom (Educause, 2012). Students require discipline to stay on task and if they don't complete the work prior to class they fall behind. Though I believe this can work as a strategy to promote student accountability and responsibility. The inaccessibility for students due to not having the required technology for viewing videos prior to class can be a large barrier for students (Sams & Bergmann, 2013). This can marginalize students from the outset. And lastly, there can be a tremendous amount of work and effort for teachers to flip the classroom, at least initially, the first time the material is taught. In subsequent years of teaching the same course, the teacher can utilize the same videos or minimally edit them to better meet the needs of the students. As time progresses the work should lessen.

Interpretive

I came across a couple interesting ideas for increasing the accessibility of teachers' lectures prior to class. Educause (2012) proposed the need for development of putting material on mobile devices so that these resources are available "at times and places that are most convenient for (students)" (p.2). In this technology era, this seemed like a fantastic idea for our millennial students to not only increase their accessibility but also increase their engagement with it as well. If multiple teachers are teaching the same course and flipping the classroom the students can gain access to all teachers' DVDs. This allows for students to choose which videos are best for their learning or seek multiple sources to best meet their learning needs. If students do not have sufficient computer access to view videos they can be copied and available to students on DVDs. If the students do not have DVD players then the teacher must make opportunities for those students to access DVD players or computers on campus.

Sams & Bergmann (2013) observed that; "courses that are more Socratic or inquiry-based, or those that don't have reams of factual content for students to learn, aren't particularly suited to flipping." The higher end taxonomy learning skills are best implemented in the classroom. Didactic learning with large quantities of information that require remembering and understanding, on the low end of the taxonomy, benefit most from the flipped classroom (Sams & Bergmann, 2013). Of course it depends on the course itself but a lot of nursing courses have a mix of didactic learning but require learning at the high end of the taxonomy as well. I think the flipped classroom can work perfectly for courses like this, because the didactic learning is taught before class, and then classroom time can address problem areas and implement active learning activities to promote the higher level thinking on Bloom's taxonomy.

Decisional

There is one course in the nursing program that would especially benefit from flipping the classroom to augment learning. This course currently uses the first half of the class to provide content information about a health condition, for example postpartum haemorrhage, and then utilizes the rest of the class for a case study for students to collaborate and apply this information. Flipping the classroom using screencasts (power presentations with teacher's voice) recorded and provided to students prior to class ensures the students are well prepared on each topic area (Sams & Bergmann, 2013). Classroom time can be utilized to re-explain areas of challenge and then the majority of the time is for problem-based collaborative learning. The teacher becomes a facilitator of learning in the classroom and provides appropriate and relevant resources for students to solve the problem.

The student preparation work prior to class becomes a cycle loop of two of the learning principles of andragogy: self-directed learning and internal motivation. The student uses self-directed learning to learn the new material, which as a consequence internally motivates the student to attend class to apply their learning, which in turn then encourages the student to continue using self-directed learning. The in-class portion of learning should then become the application of all of the other principles of adult learning.

To provide diversity and increase engagement in class the teacher must actively seek out methods to mobilize the adult learning principles and adapt the class format weekly. The teacher must ensure the material is relevant to the student, appropriate to the student's developmental role, have an immediacy in application and draw from the students' experiences. One week the students can be given the entire case study prior to class so that they can sketch out notes prior. Another week perhaps only part of the case study is provided, for example the lab-work, so that students focus on different aspects of patient care. Another week the students could be given a

selection of case studies to choose to work on, to ensure the case study is relevant to them. The students' can develop rough draft case studies based on their nursing practice areas, for example a group of eight students assigned to a urology clinical placement area, choose a particular patient they have encountered. The outline of the case study is provided to the instructor which can then be further developed by the teacher to ensure clinically relevant data and key concepts are incorporated. This activity can help build a foundation for the students to then move towards completing a future assignment. The assignment is that students either individually or in groups develop a full detailed case study to present to the class and co-facilitate the class' learning by working through the case study. These examples encompass four of the adult learning principles: a) relevancy to the students; b) utilization of students' reservoir of experience; c) fulfillment of their developmental role as student nurse; d) has an immediacy in application (Merriam & Bierema, 2014). Another week a CAFÉ style teaching strategy can be implemented presenting one case study to each group of students for a portion of the class and then groups switch case studies and review the previous groups' work and build on it. The end result is a compilation of input from the entire class on each case study. At the end of class, designated reporters or all group members are expected to present a summary of the work on each case study while the instructor highlights key themes.

In this course and for courses that have less didactic learning, I plan to utilize a gradual or partial approach to flipping the classroom (Educause, 2012). I would seek feedback from the students along the way as well, keeping in mind though that students may at first resist the self-directed nature of this way of learning. Self-directed learning is on a continuum and as students become more proficient in directing their learning and more familiar with content, then the teaching method can be adapted for students accordingly (Baumgartner, 2003). Once my comfort level with flipping the classroom and the students' move along the self-directed learning

continuum I would then begin to utilize it more often. For classes that have less didactic learning and require more higher level thinking on Bloom's taxonomy, I plan to only use the flipped classroom only occasionally. This gradual and partial adoption based on student's needs, input and required level of learning embraces the values of collaboration and individualization of learning of the theory of andragogy.

I see great potential for the flipped classroom either in entirety or partially in many of the nursing courses I teach. Teaching strategies need to fit the learners so it is important that the instructor prioritize collaboration with the students. The flipped classroom is the efficient use of the teacher's time to personalize student instruction and to utilize classroom time for active learner engagement. Once the teacher has successfully addressed the barriers, and applied the principles of adult learning, the flipped classroom can be a fun way to humanize the learning experience and promote higher levels of learning (TED Talk, 2013).

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