AMERICAN JOURNAL OF SOCIAL AND HUMANITARIAN RESEARCH

ISSN: 2690-9626
Vol. 4, No. 1, 2023

Engaging Students to Flipped Classrooms by Active Learning Strategies

L. Nazarova
Turin Polytechnic University in Tashkent

ABSTRACT: A flipped classroom is an opportunity to use readily accessible technology to free class time from traditional lectures which allows for an expanded rage of learning activities such as greater teacher-to-student mentoring, peer-to-peer collaboration and cross-disciplinary engagement during class time. This paper investigates the "flipped" or "inverted" classroom model in order to address obstacles of engaging millennial in lecture-based classrooms and presents an argument for application of the "flipped classroom" model by educators in the disciplines of family and consumer sciences. A feeling of importance to adapt to nowadays students learning preferences is enhanced as educators increasingly struggle to grasp the attention of modern learners. Unlike previous generations, now students reared on rapidly evolving technologies demonstrate decreased tolerance for lectures. Using active learning strategies is critical in order to reach today`s students.

KEYWORD: flipped classroom, active learning activities, millennial.

INTRODUCTION

Millennials are individuals born between 1982 and 2002 [17]. Millennial students, referred to as "digital natives" [8], have been exposed to information technology from a very young age. Their access to technology, information, and digital media is greater than that of any prior generation. Characteristics of Millennial students include 24/7 information connectedness, a preference for environments that support multitasking, and gravitation toward group activity and appreciation of the social aspects of learning [7]. This generation is distinguished by their access to technological and collaborative experiences. Millennial students drive change in learning environments around the world. The technology, with which digital natives matured, has induced today's students to "think and process information fundamentally differently from their predecessors" [8]. Although educators bemoan this generations' inability to focus, [9] it was pointed out that "it is not our students' attention capabilities that have changed, but rather their tolerance and needs". This characteristic actually validates the urgency to adopt alternative methods of instruction, and many teachers are incorporating active learning strategies as a better way to engage these students.

ANALYSES

ACTIVE LEARNING

For decades, educators and educational researchers have questioned the effectiveness of teaching methods that are entirely lecture-based [2]. Despite innovations in technology enabling alternative techniques for pedagogy, lecture formats continue to be the primary method for teaching adult learners [4]. Educators and

ISSN 2690-9626 (online), Published by "Global Research Network LLC"
under Volume: 4 Issue: 1 in Jan-2023 https://globalresearchnetwork.us/index.php/ajshr

researchers have come to recognize the "complexities of teaching and learning for understanding as opposed to just knowledge retention" [11]. If the goal of teaching is to enhance understanding, educators must move from rote memorization of knowledge and facts, where understanding is developed through "active and constructive processes" [11]. To achieve this objective, educators must shift from a teaching-centered paradigm toward a learner-centered paradigm.

There were suggested seven principles as ideal best practices in active learning [6]. Active learning is a term for pedagogies focusing on student activity and student engagement in the learning process [10]. Teaching methods promoting active learning are those "instructional activities involving students in doing things and thinking about what they are doing" [5]. Activities should be designed to emphasize important learning outcomes requiring thoughtful participation on the part of the student [10]. Four broad categories of instructional approaches for use in an active learning classroom have been identified: (a) individual activities, (b) paired activities, (c) informal small groups, and (d) cooperative student projects [18]. These methods encompass many activities such as conceptual mapping, brainstorming, collaborative writing, case-based instruction, cooperative learning, role-playing, simulation, project-based learning, and peer teaching [18]. Active learning methods require students to utilize higher-order thinking skills such as analysis, synthesis, and evaluation [5].

THE FLIPPED CLASSROOM

Active learning pedagogies continue to evolve, and new methods of delivering course material are being developed [1]. Assimilating active learning can be as simple as integrating in-class activities alongside traditional lectures. Yet educators in elementary through post-secondary education are finding innovative ways to restructure the classroom [14] in order to focus attention on the learner [3]. Instructors adopting the flipped classroom model assign the class lecture or instructional content as homework. In preparation for class, students are required to view the lecture. Students utilize the time in class to work through problems, advance concepts, and engage in collaborative learning [16].

With internet access widely available on most college and university campuses, students may view web-based instruction on their own time, at their own pace. This provides opportunities to utilize the classroom for the application of information addressed in the online lecture. Because students have viewed the lecture prior to class, contact hours can be devoted to problem solving, skill development, and gaining a deeper understanding of the subject matter [3]. The teacher is able to provide students with a wide range of learner-centered opportunities in class for greater teacher-to-student mentoring and peer-to-peer collaboration, increasing the possibility to engage millennial students [9].

LEARNING USING NON-LECTURE BASED STRATEGIES

A flipped, or inverted, classroom model could be adapted easily to multiple disciplines such as textile design, apparel design and construction, interior design, and nutrition [1]. Of particular relevance are courses in which a lecture is primarily based on disseminating information and learning occurs when students apply these instructions to complete a task or an assignment. The flipped classroom model suggests the use of a variety of technologies in preparing and posting lessons for students' access prior to class. The implementation of computer-aided instruction (CAI) can be used to assess the likelihood of success in a flipped classroom within different disciplines.

There was provided a list of topics for which CAI has been developed [13]. Among the topics are textiles, flat pattern design concepts, concepts in clothing construction, and visualizing three-dimensional designs from two dimensional patterns. It was argued that the development of additional CAI modules could allow instructors to use limited class time to guide students through unique learning paths appropriate to individual skill level or project needs. Therefore, we can safely deduce that the flipped classroom could be beneficial for

ISSN 2690-9626 (online), Published by "Global Research Network LLC"
under Volume: 4 Issue: 1 in Jan-2023 https://globalresearchnetwork.us/index.php/ajshr

topics where class lecture is predominantly utilized to provide instruction. For example, implementing the flipped classroom in clothing construction would allow students and instructors to focus class time on skill development, problem solving, and active learning of construction concepts while executing assignments.

BENEFITS OF USING A FLIPPED CLASSROOM MODEL

Instructors implementing a flipped classroom use various methods for preparing the online content [1]. There was made useful observations and suggestions for instructors who consider using the flipped classroom model [14]. When the focus of the flipped classroom is on giving students the freedom to interact with the content according to their own learning style, the flip seems to be more successful. Due to the structural differences of the flipped classroom model, students become more aware of their own learning process than do students in more traditional settings. Students will therefore need more space to reflect on their learning activities in order to make necessary connections to course content. The teacher must plan for a component in the course structure allowing for reflection to take place. It is important for the teacher to be able to see and comment on specific aspects of student reflection. This feedback cycle will be crucial in assessing student learning.

Flipping the classroom allows for a range of teaching methodologies to be employed such as videotaping the instructor while lecturing, creating videos with voiceover and screen-capture software, instructions accompanied by visual aids, utilizing videos found online from sources such as YouTube and TeacherTube, and integrating discipline-specific websites of videos available through professional organizations and companies [12]. This allows instructors to improve communication and connection with students possessing a broad range of abilities.

LIMITATIONS OF USING A FLIPPED CLASSROOM MODEL

The flipped classroom may not be applicable to all subjects. For instance, there was performed a comparative study between a flipped classroom and the traditional classroom for an introductory statistics course [14], [15]. The findings of this study demonstrated that students participating in the flipped classroom were less satisfied with the teaching format than students in the traditional classroom were. Students participating in the flipped classroom did not adjust swiftly to their new learning environment. Some students were uncomfortable participating in group learning activities because they preferred working alone. Others were accustomed to the old method of doing assignments on their own, in the setting of their choice. The radical change was not well received. However, students in the flipped model experienced more innovation and cooperation in their learning when compared to the traditional classroom students. Challenges with the flipped classroom model include adapting traditional lectures to alternative media in order to post content online. Other challenges teachers face includes making changes to the online lectures. The flexibility required to make adjustments to course content may be dependent on the technology originally used to create the lecture. Complexity of making changes could vary between re-recording an entire video lecture or could be as simple as adding an additional slide to a PowerPoint presentation. As technology used for presenting information gets smarter, faster, better, and cheaper, educators will be forced to learn and access more of these tools [9]. The flipped classrooms, as well as active learning, require students to assume more responsibility for their individual learning experience. Teachers must include clear expectations of selfdirection and motivation within their syllabus or framework of the course. For this reason, verification, through application of information in a project-based scenario, may be one indication that students have performed the task of viewing the lecture prior to entering the classroom.

CONCLUSION

The introduction of any new strategy requires a shift in the minds of both educators and students. Teachers must be willing to experiment with alternative strategies in the classroom. For those instructors who are

ISSN 2690-9626 (online), Published by "Global Research Network LLC"
under Volume: 4 Issue: 1 in Jan-2023 https://globalresearchnetwork.us/index.php/ajshr

willing to apply these new methods, it is important that they periodically reflect on their teaching effectiveness. At the same time, students may require more than a semester to adapt to the new method of instruction and to recognize its value. Through active learning and technology enabled flipped classroom strategies, students may develop higher order thinking skills and creativity. The effective application of vital competencies such as critical thinking, creativity, communication, and collaboration [3] at one's workplace is more likely if these skills are acquired in college. In addition, one's adaptability to new technologies is crucial for graduating students to succeed in the workplace. This underlines the need for the provision of technology-infused learning environments at educational institutions. Training must be provided for educators in the application of existing and emerging technologies. At a time when educational institutions face increasing demands to improve learning experiences and capture the attention of Millennial students, the flipped classroom strategy provides an opportunity to address both these concerns. These pathways toward more powerful learning outcomes, retention of knowledge, and increased depth of knowledge suggest an optimistic future for education.

REFERENCES

1. A.Roehl, Sh.Linga Reddy, G.Jett Shannon (2013). The Flipped Classroom: An Opportunity to engage Millenial Students through Active Learning Strategies.
2. Barr, R. B., & Tagg, J, (1995). From teaching to learning: A new paradigm for undergraduate education. *Change,* 27(6), 12-25.
3. Bergmann, J., & Sams, A. (2012). *Flip your classroom: Reach every student in every class every day.* Eugene, OR: International Society for Technology in Education.
4. Bligh, D. A. (2000). *What's the use of lectures?* San Francisco, CA: Jossey-Bass.
5. Bonwell, C. C, & Eison, J. A. (1991). *Active learning: Creating excitement in the classroom.* Washington, DC: School of Education and Human Development, George Washington University.
6. Chickering, A. W, & Gamson, Z. F (1987). Seven principles for good practice in undergraduate education. *American Association for Higher Education Bulletin.*
7. McMahon, M., & Pospisil, R. (2005). Laptops for a digital lifestyle: Millennial students and wireless mobile technologies. *Proceedings of the Australasian Society for Computers in Learning in Tertiary Education.*
8. Prensky, M. (2001). Digital natives, digital immigrants. *On the Horizon, 9(5),* 1-6.
9. Prensky, M. R. (2010). *Teaching digital natives: Partnering for real learning.* Newbury Park, CA: Corwin.
10. Prince, M. (2004). Does active learning work? A review of the research. *Journal of Engineering Education,* 93(3), 223-231.
11. Ritchhart, R., Church, M., & Morrison, K. (2011). *Making thinking visible: How to promote engagement, understanding, and independence for all learners.* San Francisco, CA: Jossey-Bass.
12. Roehl, A. (2013). Bridging the field trip gap: Integrating webbased video as teaching and learning partner in interior design *education. Journal of Family & Consumer Sciences, 105(1),* 42-46.
13. Slocum, A., & Beard, C. (2005). Development of a CAI module and comparison of its effectiveness with traditional classroom instruction. *Clothing & Textiles Research Journal, 23(4),* 298-306.
14. Strayer, J. E (2007). *The effects of the classroom flip on the learning environment: A comparison of learning activity in a traditional classroom and a flip classroom that used an intelligent tutoring system.*

ISSN 2690-9626 (online), Published by "Global Research Network LLC"
under Volume: 4 Issue: 1 in Jan-2023 https://globalresearchnetwork.us/index.php/ajshr

15. Strayer, J. F (2012). How learning in an inverted classroom influences cooperation, innovation and task orientation. *Learning Environments Research, 15*, 171-193.

16. Tucker, B. (2012). The flipped classroom. *Education Next, 12(1),* 82-83.

17. Wilson, M., & Gerber, L. E. (2008). How generational theory can improve teaching: Strategies for working with the 'millennials.' *Currents in Teaching and Learning, 1(1),* 29-44.

18. Zayapragassarazan, Z., & Kumar, S. (2012). Active learning methods. *NTTC Bulletin, 19(1),* 3-5.

ISSN 2690-9626 (online), Published by "Global Research Network LLC"
under Volume: 4 Issue: 1 in Jan-2023 https://globalresearchnetwork.us/index.php/ajshr