Advantages And Disadvantages of a “Flipped” Math Classroom

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“Flipping” the classroom by having students complete the teacher’s instruction through the video for homework and completing the traditional homework practice problems during class is a new trend. Discuss some of the advantages and disadvantages of a “flipped” math classroom.

Introduction

The concept of flipped classrooms is spreading in educational institutes because of its more practical implications. Children nowadays are more connected to the world, and to respond to their learning needs, this is an entirely new and creative model. Not only does it benefit students, but it creates a win-win situation for teachers and students. Before introducing the concept of flipping in math class, understanding its importance is really important. Flipping is basically the concept in which the modern methods of teaching are integrated with technology. The time in the classroom is limited. Rather than introducing the concept to students, the instructor can just make a video lecture and free up class time for more productive and valuable activities (Simonson, 2014). It will only be beneficial when the technology and students are integrated effectively. The concepts in math class are complicated, and students should grasp them through proper assistance. So, some of the advantages and disadvantages are discussed here to see how flipping class influences a math course.

Discussion

In this new trend, lectures are planned properly and utilize maximum resources to make the course interesting and engaging. Online quizzes can be taken to assess students’ progress. This will help to focus on areas that need attention from the supervisor. Flipping classes are the use of instructional technology, which is normally used in higher education and is moving toward middle and elementary classes. These concepts are being integrated because the accuracy of learning increases, and the decrease is experienced in the mental effort by following this technique (Mattis, 2014). Flipping in math class is used to give a better experience and for students to experiment with multiple

structures. Teachers are also flipping their classes to improve the experience of students. There are even multiple apps that make flipping easy in math classrooms. These applications break down the complex questions in easy and simple ways so that students can relate to those scenarios. Some of those apps include DragonBox, Operation Math, geoboard, Power Math apps, and Math Lab. These apps are aligned with the core concepts of mathematics and are also really fun to use. They not only help the students at home but can be used anywhere. This thing allows the students to study new concepts while they are in their comfort zone.

Here, some of the advantages and disadvantages of pursuing the flipped class concept will be discussed to have a clear understanding of how this new trend works out.

Advantages of “flipped” math classroom

Integrating flipping in math class can help students understand the concepts more practically. Even research has shown improvement in students’ understanding by following the flipped model in the course of linear algebra (Hodge, Grandgenett, and Swift, 2013).

The unique advantage of the flipped classroom is that the control of students in class increases. Short lectures are provided to students to prepare from home, which gives them more time to give their input during class activities. Freedom is given to students so that they can learn at their own pace. The lectures can be reminded and paused if something is not clear. This makes it even more effective for students in math class because there are many concepts that need revision. The behavior and performance of the student in class actions are improved.

The collaboration, as well as the discussion of concepts, is improved. Students can learn new things easily with the assistance of an instructor. Students own their learning because they take an active part in it, and this builds their confidence. This enables students to identify the errors in the application of concepts. It is not advised to leave everything for students because a complete lack of guidance in math class will result in misunderstanding of concepts. It is intended to create a more flexible environment to make learning convenient (Johnson, 2013).

In a flipped class, the videos are made available to students for all time on online channels. This is of help for students who miss their class due to an emergency, illness, or urgent work. Students who miss lectures can catch up easily, and this helps the teacher improve their flexibility in class.

The important feature of modern flipping classes, as compared to traditional classrooms, is that parents can have access to students’ video lectures. This is helpful for a parent to prepare lectures if they help their children in preparation for the exam. Also, the quality of instructions provided to the children is visible to their parents, which helps in accessing the quality of education.

Disadvantages of “flipped” math classroom

Like everything, there are also disadvantages of the flipped classroom, and the most prominent one is that every student has a different level of mind, so they learn at changed paces. However, getting more knowledge completely depends on the self-motivation of the student. The learning pace is affected because tests are given to every student, and they attempt at their time of convenience. This can reduce the sense of order and punctuality.

One of the prominent issues raised because of flipped classroom environments is the requirement for internet and computers to attend lectures. This is a problem for students who belong to low-income areas. The complete dependency of these classes is on the participation of students, so they should be trusted about watching the lectures on time. Implementing his system does not provide a guarantee that students will cooperate with the flipped classroom model.

A significant workload is put on the teachers. In order to make the class flourish, multiple elements should be integrated carefully into the online system. The condensed lectures should be first taped and then uploaded, which requires time and skill. Introducing new topics and activities in class is necessary so that learning can be enhanced and students will become motivated to participate in class.

Though there are many positive aspects of this learning technique, it is also true that it does not match with the “teach to test” environment. The standardized scoring of tests is not improved by following this model. However, both students and teachers require a lot of time to prepare for the lecture, other than classroom timing.

When the flipping classroom is implemented in each class, students spend more time with laptops and screens, which causes serious issues in the long term. Students do not spend time with their fellow students and abandon going to different places, which has an adverse effect on their physical health.

For a math class, it is also not possible to deliver everything through a video lecture because there are multiple queries that students have to ask, and the clarification should be made in a more real environment.

Conclusions

Despite the disadvantages, the advantages of flipped classrooms outweigh the disadvantages and prove that they are still really effective in turning the learning model. In developed countries like the USA, the concept of flipped classrooms is accepted to provide students access to their teaching material 24/7 (Fulton, 2012). Flipping classrooms is a hands-on method to improve the involvement plus achievement of students in education.

References

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