ISSN 2959-6122

Research on Measures to Improve Students' Learning Effectiveness by Improving the Classroom Teaching Model

Guleyan Chen

Olive Tree International Academy, BFSU, Hangzhou, Zhejiang, China
sybilchengu@gmail.com

Abstract:

The importance of an effective classroom teaching model in enhancing students' learning does not need to be overemphasized. With the development of society and the evolution of educational needs, the demand for innovative teaching strategies to meet different learning needs is also constantly developing. This article discusses various classroom teaching models, including traditional, flipped classroom, and project-based learning, and studies their advantages and disadvantages. By summarizing past literature, the study identifies the gaps in the current teaching model and puts forward strategies to solve these shortcomings. The research results show that although there is no single model that is universally valid, a hybrid method combining different models may improve learning outcomes. The government needs to formulate policies to emphasize the importance of teaching, schools need to provide a platform for teachers' communication and students' practice, and teachers also need to use scientific and technological tools to attract students' attention in the classroom.

Keywords: Classroom teaching model; learning effectiveness; hybrid method

1. Introduction

Effective classroom teaching models are vital in shaping student learning experiences and outcomes. As educational methods undergo rapid transformation due to technological development and changing societal needs, the traditional teaching model--such as teacher-centered instruction and rote learning--is increasingly being challenged. Research shows that diverse and dynamic teaching methods can attract students' attention, and significantly enhance student engagement, motivation, and academic performance [1].

Despite the existence of various teaching models, including the flipped classroom, project-based learning, and so on, there remains a lack of consensus on the most effective approach. Existing research mainly focuses on individual models, and often neglects the potential benefits of integrating different strategies [2]. This paper aims to address this gap by summarizing the strengths and weaknesses of various teaching models and proposing a comprehensive approach to enhance learning effectiveness.

2. Overview of the Current Teaching Model and Problem Analysis

A classroom teaching model refers to a systematic approach to education that includes specific strategies, methodologies, and practices designed to facilitate learning. It includes the roles of both teachers and students, the organization of content, and the methods of assessment. Effective teaching models are those that maintain the same educational goals, adapt different learning styles, and cultivate an environment that contributes to academic performance and personal growth [3]. There are currently three main classroom teaching models. The following will introduce these three models and analyze the advantages and disadvantages of different models.

2.1 Traditional Teaching Model

The traditional teaching model is a teacher-centered model, where the lecturers are the primary source of knowledge, and students are passive recipients. The focus of this model is on rote memorization and standardized testing [2].

This model has various positive effects. For example, because all knowledge is taught by teachers in the planned order according to the syllabus and textbooks, this teaching structure enables students to know the theme and learning content of each class, which helps students understand the direction and focus of the lesson and improve their knowledge acceptance rate [2].

Another advantage is consistent delivery. The main reason is that all students listen to the same teacher's lesson at the

same time and place, such consistent educational methods and styles enable students to gain consistent basic knowledge content. This reduces the difference between teaching quality and learning experience, which is convenient for the management and monitoring of teaching quality [4]. Because of the structure and consistency of the traditional teaching model, it is easy to be standardized. This means that examination and evaluation standards can be unified in different courses. This is especially important for schools with large-scale educational systems [5].

These advantages make the traditional education model very effective in managing large classes, maintaining the consistency of teaching quality, and training and supervising teachers [2]. However, this model also has many disadvantages.

The most important disadvantage of the traditional teaching mode is that it will limit students' participation and lead them to become passive learners. In this model, the course is mainly conducted by teaching, the teacher is the main provider of knowledge, and the students are often passive listeners. In such a class, there is a lack of interaction opportunities, and students usually only listen to the lecture and take notes, without any process of self-exploration. Moreover, due to the low participation of students in the learning process, they have no chance to fully express their ideas and think critically. As a result, students understanding of knowledge points only stays in the position of remembering, and they cannot deeply understand what they have learned and put it into practice, and it is difficult to cultivate the ability, motivation, and interest in active learning.

In addition, because the traditional teaching model emphasizes unified teaching content and evaluation standards, this teaching model cannot be adjusted according to students' self-needs, interests, and abilities [6]. The lack of personalized teaching will lead to a poor learning experience for some students, unable to learn what they like or are good at, and lack of opportunity to give full play to their potential. For example, students who study faster may feel bored, while students who study slower may feel unable to keep up with their progress.

These shortcomings make the traditional education model rigid and inefficient in the context of modern whole-person education. Because students may only do well in exams, but it is difficult to apply knowledge in practice. To improve students' learning effect and in-depth understanding, it needs to explore more interactive and personalized teaching methods [2].

2.2 Flipped Classroom Model

The flipped classroom model subverts the traditional teaching structure by allowing students to review the teaching content at home and engage in interactive activities in the classroom. This model aims to enhance the understanding and application of knowledge [4].

Compared with the traditional teaching model, the inverse classroom model makes up for the shortcomings of passive learning and unpersonalized teaching and also increases classroom interaction. Students can first learn the basic content by watching video explanations and reading materials, and then participate in more in-depth research such as discussion and problem-solving in class. This model allows students to become active learners and participate in the process of self-exploration and self-learning, rather than just passive listening so that students can better understand and consolidate their knowledge [4]. Moreover, in this mode, teachers can conduct more interaction and personalized guidance with students during class time, better understand students' needs, understanding, and difficulties, carry out more targeted tutoring and teaching, and provide timely feedback and help. This enhances the interaction and communication between teachers and students so that the learning styles and abilities of different students can be satisfied, and better help all students achieve their learning goals [4].

These merits make the flipped classroom a more flexible and interactive teaching model, which is suitable for application in the modern educational environment. However, this model also has some shortcomings.

The flipped classroom model requires teachers to prepare a large number of teaching materials before class, such as video explanations and online resources. Teachers need to spend time making or finding high-quality materials and ensuring that these materials can effectively and accurately convey the core content of the course. These preparations are usually longer than the preparation time of the traditional classroom model, teachers need to invest a lot of time and energy.

The most important thing is that the success of flipping the classroom mode mainly depends on students' self-discipline because students need to independently watch videos and reading materials before class, and complete relevant preview tasks. If students lack active learning ability and fail to complete the pre-class learning tasks on time or effectively, the interaction and in-depth discussion in the classroom will be affected, and the overall learning effect will be greatly reduced. Therefore, this teaching model has high requirements for students' independent learning and time management ability.

In addition, flipped classes require students to access learning materials and videos through electronic devices (such as laptops, iPads, or mobile phones) before class. However, not all students have such equipment or a stable network to access these resources. This gap will cause

some students to be unable to fully participate in the learning process of the flipped classroom, resulting in inequality and unfair learning opportunities [4].

These shortcomings show that although the flipped classroom has many advantages in promoting active learning and flexibility [4]. There are also practical challenges in its implementation, especially in terms of preparation and student ability [6].

2.3 Project-Based Learning (PBL)

Project-Based Learning (PBL) is a student-centered model that emphasizes learning through projects and solving real-world problems. It encourages collaboration, critical thinking, and practical application of knowledge [5].

The main benefit of PBL is that it learns based on real-life problems, which makes the learning content more practical. The knowledge and skills learned by students in the project can be directly applied to real life, such as community service projects, business case studies, or environmental protection actions. This connection with reality makes it easier for students to understand the practical application value of what they have learned and increases the motivation and sense of participation in learning [5]. In this learning model based on open problems, students investigate complex problems and conduct in-depth research through their assumptions, learn how to collect and analyze information and data, constantly reflect and adjust in the process, and finally draw conclusions and solutions. Through this learning process, students can develop critical thinking ability, learn how to solve problems, and make wise decisions, which promotes long-term retention of knowledge, not just memorization [5].

PBL will also encourage students to work together in teams to complete tasks. Students must divide the work and cooperate, communicate and discuss together, and rely on the strengths of different members of the team to complete sophisticated tasks. This kind of cooperation helps students improve their communication ability and teamwork spirit, which is a very valuable skill in future careers [5].

These advantages make PBL a more participatory and applicable teaching method, which can better prepare the necessary skills and knowledge for learners.

However, project-based learning usually takes a long time. Compared with the traditional teaching model, it is more complicated to complete a PBL task, including querying information, discussion and presentation, and so on. Moreover, in large-scale classrooms, the implementation of PBL may encounter many difficulties. Because PBL requires more personalized guidance and preparation, it is difficult for teachers to provide sufficient attention and support to each student in the case of a large number of students. Therefore, both the guidance of teachers and the completion of students are more difficult and require more time than the traditional teaching model [6]. These characteristics make PBL easy to lead to teaching delays and inconsistency in teaching quality in limited-time and large-scale classrooms.

Finally, in PBL, students' academic performance is not only evaluated through standardized tests but also involves multiple skills, such as critical thinking and teamwork. These complex learning outcomes are difficult to be quantitatively evaluated through traditional exams or single scoring criteria. Therefore, teachers need to design more complex evaluation methods, such as oral presentations or PowerPoint, which take more time for teachers to implement effective evaluation standards, and it is easy to cause unfair scoring [6].

These shortcomings show that although PBL has many educational advantages in theory, its implementation in practical teaching requires overcoming many challenges such as time management and evaluation.

3. Discussion

3.1 Findings

The analysis reveals that while each teaching model has its strengths, none is without weaknesses. The traditional model is effective in providing structured content but often fails to attack students meaningfully [2]. Also, many things are learned only superficial, students do not have their thinking. The flipped classroom model enhances engagement and understanding but requires significant preparation and student autonomy [4]. Project-Based Learning promotes critical thinking and real-world application but can be challenging to implement and assess [5]. This means that there will be certain problems and limitations in the use of a single teaching model, which shows that the teaching mode needs to be further improved and integrated, to enhance students' learning efficiency.

3.2 Recommendations

To improve the learning effectiveness of students, it not only needs to integrate the above three models but also needs to improve related teaching aspects such as teaching design, schools, and teachers.

First of all, from the most basic aspect - teaching policy design, the government and the Education Bureau should formulate policies to emphasize the importance of teaching to avoid the situation where schools and teachers focus on scientific research and over teaching because of policies. For example, it stipulates how many resources schools need to put into teaching, or teachers need to teach for a certain amount of time every day, such as that.

In addition, the government also needs to take academic evaluation as a key criterion to reduce the difference in the quality of education. This means that it is vital to improve the systematic teaching evaluation content. It should be divided into quantitative and qualitative, including but not limited to student performance and feedback, peer evaluation, classroom teaching observation, and so on. Moreover, teachers should be trained regularly to encourage them to use innovative and combined teaching models based on professional teaching. Last but not least, excellent teachers should be rewarded to motivate other teachers to improve their teaching methods [7].

Next is the school. For schools, they should put teaching first by the policies of the government and the Education Bureau. Setting teacher evaluation as part of the year-end assessment criteria to supervise the quality of teaching. In addition, teaching seminars can also be organized between schools to promote the sharing of teaching experience and the innovation of teaching methods. Finally, schools can provide students with extracurricular activities and resources, such as clubs, internships, and community volunteer projects, through which these practical activities can connect the knowledge on paper with practical applications [8,9].

Teachers, not only need to combine the three teaching models mentioned above according to the teaching assessment to create a structured and interactive classroom. In the era of rapid development of science and technology, they should also combine these tools to innovate teaching models. For example, playing some YouTube videos of relevant knowledge in the classroom, or putting pictures and diagrams in PowerPoint can stimulate students' attention and interest in hearing and visuals, and prevent students from feeling bored and sleepy in the pure text classroom [10].

4. Conclusion

This study has reviewed various classroom teaching models, highlighting their strengths and weaknesses and their impact on learning effectiveness. The traditional model, while structured, often lacks engagement. The flipped classroom and PBL models offer more interactive and practical approaches but come with their challenges. Due to the limitation of using a single teaching model, it needs to improve and integrate the teaching model to improve students' learning efficiency.

The government and the Education Bureau should formulate policies to emphasize the importance of teaching and improve teaching evaluation to supervise schools and teachers. Encouraging and rewarding excellent teachers will also have a positive impact. For schools, they should strengthen teacher evaluation according to policies and provide a platform for teachers to communicate. Also, students can be provided with extracurricular activities and resources. For teachers, they need to combine three teaching models to create a structured and interactive classroom. They should also combine these tools to innovate teaching models.

Further research is needed to explore the long-term effects of hybrid teaching models on learning outcomes. Additionally, studies that focus on the implementation of these models in diverse educational settings could provide more comprehensive insights into their effectiveness.

References

[1] Bandura A. Social learning theory. Englewood Cliffs, 1977.

[2] Biggs J. Teaching for quality learning at university: What the student does, 2011.

[3] Vygotsky L S. Mind in society: The development of higher psychological processes. Harvard University Press, 1978.

[4] Doung-In S. Flip your classroom: Reach every student in every class every day. Walailak Journal of Learning Innovations, 2017, 3(2): 71-78.

[5] Bell S. Project-based learning for the 21st century: Skills for the future. The Clearing House, 2010, 83(2), 39-43.

[6] Kirschner P, Sweller J, Clark R E. Why unguided learning does not work: An analysis of the failure of discovery learning, problem-based learning, experiential learning, and inquiry-based learning. Educational Psychologist, 2006, 41(2): 75-86.

[7] Marsh H W, Roche L A. Effects of grading leniency and low workload on students' evaluations of teaching: Popular myth, bias, validity, or innocent bystanders? Journal of Educational Psychology, 2000, 92(1): 202.

[8] Ramsden P. Learning to teach in higher education. Routledge, 2003.

[9] Kuh G D. Excerpt from high-impact educational practices: What they are, who has access to them, and why they matter. Association of American Colleges and Universities, 2008, 14(3): 28-29.

[10] Munna A S, Kalam M A. Teaching and learning process to enhance teaching effectiveness: a literature review. International Journal of Humanities and Innovation (IJHI), 2021, 4(1): 1-4.