

Research on Flipped Classroom Teaching Mode

Yunna Liu*, Yang Nan

Faculty of Management, Tianjin University of Technology, Tianjin, China

*Corresponding author: 157789094@qq.com

Abstract: Flipped classroom is a new type of teaching model. In this teaching mode, students learn new knowledge by watching video lectures, reading e-books, participating in online discussion before class, while classroom time is used to discuss and solve problems. Do more in-depth interactive activities such as experiment or project cooperation. This article summarizes the key factors and characteristics of flipped classroom development, summarizes the advantages and disadvantages of the existence of flipped classroom, and expresses some objective views.

Keywords: Flipped classroom; Teaching mode; Self-study.

1. Introduction

Flipped classroom is a new type of teaching mode. It has adjusted the time inside and outside the class and transferred the initiative of learning from teachers to students. Under this teaching mode, students learn new knowledge by watching video lectures, reading e-books, participating in online discussion before class, while classroom time is used to discuss, solve problems, experiment or project cooperation, etc.

2. The Key Factor in The Development of The Classroom

The background of the flipped classroom can be traced back to the beginning of the 21st century. The popularization and development of this teaching model is closely related to several key factors:

2.1. Technological progress

With the rapid development of Internet technology and multimedia tools, teachers can make and share teaching videos more easily. This makes it possible for students to watch teaching videos outside the class and provide a technical foundation for the implementation of the classroom.

2.2. Education and innovation needs

The traditional teaching model is teacher-centered. Students are passively accepted in class, and they apply these knowledge in homework and exercises outside the classroom. This model sometimes cannot meet the learning needs of all students, so the education community has begun to find new teaching methods to improve learning effects.

2.3. The development of learning theory

Studies in educational psychology and cognitive science show that students can better grasp their knowledge through active learning and participation in practice. Flipped classroom mode is based on this theory that the classroom time is used for students' active learning and discussion.

2.4. Global Education Reform

Education systems around the world are seeking reform to improve the quality of education and the 21st century skills of students. As an innovative teaching strategy, flipped classroom

is regarded as a way to promote education reform.

2.5. Teachers' exploration practice

Some teachers with innovative spirit have begun to turn traditional classrooms upside down, allowing students to watch lectures outside the classroom and discuss and practice in the classroom. The successful cases of these early practitioners have stimulated more educators' interest in flipped classroom.

2.6. The rise of online education and open resources

With the rise of online education platforms and open education resources, teachers and students can easily access a large number of learning materials, which provides rich resources for the implementation of the classroom.

2.7. Change of students' learning methods

Contemporary students are a generation that grows up in the digital technology environment. They are used to learning through videos and online resources. Flipped classroom mode is in line with their learning habits.

The background of the flipped classroom reflects the reflection of traditional teaching models in the field of education and the exploration of new technologies, new ideas and new methods. With the continuous advancement of education informatization, flipped classroom as an effective teaching method, it is getting more and more attention and application worldwide.

3. The Characteristics of Flipped Classroom

The characteristics of flipped classroom are mainly reflected in the following aspects:

3.1. Character conversion

In the flipped classroom, the role of the teacher has changed from traditional information transmitters to the promoters and instructors of learning, while students have changed from passive recipients to active learners.

3.2. Time reorganization

In the traditional teaching mode, the class time is used to teach new knowledge, and the homework and exercises are

carried out after class. In the classroom model, this order is upside down. The learning of new knowledge can be completed by self-learning methods before the class, and the class time is used to explore and practice in -depth.

3.3. Personalized learning

Because students can learn new content in their time and rhythm, flipped classroom can better meet the students' personalized learning needs.

3.4. Enhanced interaction

The re-distribution of class time makes teachers have more time to interact with students, and there are more opportunities to learn and discuss between students.

3.5. Technical dependence

Flipped classrooms usually depend on information technology, such as video production and online learning platforms so that students can access learning materials outside the class.

3.6. Change of the evaluation method

Flipped classroom may change the traditional evaluation method, pay more attention to process evaluation and students' participation, not just test results.

3.7. Increase participation

Through the diversification of classroom activities, flipped classroom can improve students' participation and interest, making learning more vivid and effective.

3.8. Home -school cooperation

Flipped classroom mode may require parents to support, because students need to complete a part of learning tasks in the family environment.

3.9. Continuous learning cycle

Flipped classroom to encourage students to conduct continuous review and preview, forming a more continuous and cycle learning process.

3.10.Strong adaptability

This teaching model can adapt to the learning style and ability level of different students and provide all students with opportunities for success.

The implementation of flipped classroom requires teachers to have certain technical ability and innovative teaching methods, and also requires schools to provide necessary technical support and training. With the development of educational technology, the prospects of flipped classrooms are broad, which helps to promote education innovation and improve the quality of education.

4. The Superiority of Flipped Classroom

The superiority of flipped classroom is mainly reflected in the following aspects:

4.1. Improve learning efficiency

Students can study at home according to their own learning rhythm. You can watch teaching videos repeatedly for content that you don't understand until you understand it. This can improve learning efficiency.

4.2. Enhance classroom interaction:

Classroom time is released for discussion and practice. Teachers can better guide students, and students can also conduct more interaction and cooperation learning.

4.3. Personalized learning

Flipped classroom allows students to learn according to their needs and interests. Each student can learn according to their progress to help meet personalized learning needs.

4.4. Cultivate students' self-learning ability

Students need to arrange their own time for self-study, which helps to cultivate their time management and independent learning ability.

4.5. Teacher's role change

Teachers' transition from the converser of knowledge to the guidance and promoter of learning can focus more on the individual guidance and deep learning of students.

4.6. Improve students 'participation

Classroom activities are more diversified and interactive, which can improve students' participation and learning interest. Teachers can observe students' learning situations in real time in class, and provide timely feedback and guidance. Adapt to different learning styles: Flipped classroom can adapt to the learning style of different students, because students can learn new content in their own way.

4.7. Promote home -school cooperation

Parents can participate in the children's learning process more directly to understand the progress of children's learning and difficulties encountered.

4.8. Use technical advantages

Flipped classroom to encourage the use of education technology, which helps students adapt to the learning methods of the digital era.

The implementation of flipped classroom requires teachers to have certain educational technical capabilities and innovative teaching methods, and also requires schools to provide necessary technical support and training. With the development of educational technology, the prospects of flipped classrooms are broad, which helps to promote education innovation and improve the quality of education.

5. The Disadvantage of Flipped Classroom

Although the flipped classroom has many advantages, there are some potential disadvantages and challenges, mainly including:

Technical requirements:

The implementation of the classroom requires reliable technical support, including high -quality teaching video production and stable network environment. In some areas of lack of technical resources, this may be an obstacle that is difficult to overcome.

5.1. Student self -discipline:

This model requires students to have a high degree of self-discipline and can complete their learning tasks independently at home. For students who lack autonomous learning ability, they may lead to poor learning effects.

5.2. Parents participation:

In some cases, parents may need to monitor their children's learning at home, which may put pressure on parents who are busy or unable to help.

5.3. Teacher burden:

Teachers need to invest extra time and energy to make teaching videos and design classroom activities, which may increase the teacher's work burden.

5.4. Evaluation difficulty:

Traditional assessment methods may no longer be applicable, and new evaluation strategies need to be developed to measure the learning effect of students. This may be a major challenge.

5.5. Learning equality:

Not all students can get the same learning resources and support outside the class, which may lead to the inequality of learning opportunities.

5.6. Classroom management:

In flipped classroom, student activities are more free, which may bring challenges to classroom management, and teachers need higher management skills.

5.7. Student acceptance

Some students may not adapt to this new learning model, and they may prefer traditional teachers' leading classrooms.

5.8. Learning motivation:

For students who need external incentives to learn, flipped classroom may reduce this external incentive, because they need to learn themselves without the direct supervision of teachers.

5.9. Training and support:

Teachers may need professional training and support to adapt to this new teaching model, which may require additional resources for schools and educational institutions.

Despite these challenges, the flipped classroom is still a promising teaching model. Many disadvantages can be overcome through appropriate planning, resource allocation and sustainable professional development.

6. Objective View of The Classroom

As a teaching model innovation, the objective evaluation should be based on multiple considerations, including educational concepts, implementation effects, student feedback, teacher abilities, etc.

To sum up, flipped classroom has certain advantages and challenges as a teaching model. Its successful implementation

requires the joint efforts and adaptation of teachers, students, parents and educators. At the same time, educational decision makers should consider the feasibility and adaptability of the implementation of flipped classrooms to ensure that all students can benefit from it.

References

- [1] Pei X Y .Design and Practice of Blended Teaching Mode of MOOCs+ Flipped Classroom-- Taking Basics of Interpretation Course As An Example[J].International Journal of Educational Science and Theory,2024,2(12):33-36.
- [2] Ma Y ,Wei C ,Huang F .A full-flipped classroom mode from the perspective of Junior High School English teachers [J]. Heliyon, 2024, 10(2): e24864-.
- [3] Hui Z .A Study on the Construction of Dynamic Assessment Model of College English Flipped Classroom Based on Mobile Learning[J].Studies in Literature and Language,2023,27(3):6-16.
- [4] Cui Y ,Wu Z Z ,Long J , et al.Emergency medicine education via the micro-course and flipped classroom-reform of medical education during the COVID-19 pandemic[J].Medicine,2023,102(50):e36459-.
- [5] Ashley P ,Doris L ,E M R S , et al.Comparative effectiveness study of flipped classroom versus online-only instruction of clinical reasoning for medical students.[J].Medical education online,2023,28(1):2142358-2142358.
- [6] V A T ,Lotte V ,M C W , et al.Evaluation of a newly developed flipped-classroom course on interprofessional practice in health care for medical students.[J].Medical education online, 2023, 28(1): 2198177-2198177.
- [7] PongpatcharaK .The Use of Flipped Classroom Technology Approach with E-Writing Program to Develop Writing and Promote Active Learning Environment of Thai EFL Learners[J].English Language Teaching,2023,16(12):39-39.
- [8] Carlos L D ,Marcela C M ,Alberto J R .Learning to learn in the Extended Inverted Classroom: An evaluation of the effects of interactive teaching on knowledge and cognitive regulation in medical students. [J]. Revista Colombiana de psiquiatria (English ed.), 2023, 52(4):314-319.
- [9] Nolan C .A Flipped Classroom: The Missing Ingredient to Models-Based Practice?[J].Journal of Physical Education, Recreation Dance,2023,94(9):3-6.
- [10] Luiz R B P ,Antonio F S R ,Cristina I S .Executive perceptions of course and educator performance on flipped classroom [J]. Education + Training ,2023,65(8-9):1023-1042.
- [11] Yi Z ,Yuyao Z ,Wen S , et al.An outcomes-based module education via flipped classroom enhances undergraduate oral histopathology learning[J].BMC Medical Education, 2023, 23(1): 848-848.
- [12] Yan M .Exploration of flipped classroom approach to enhance critical thinking skills.[J].Heliyon,2023,9(11):e20895-e20895.