

The Exploration of the "Flipped Class + Learning Procedure Evaluation" Model in the Learning Process of College Students

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Abstract

Undergraduate education is the foundation and platform of advanced mathematics, the cradle of cultivating social talents, and it is of great significance to the development of national education work. Based on the undergraduate learning process, the text puts forward the teaching practice mode of "Flipped Class and Learning Procedure Evaluation", comprehensively explores the factors affecting the undergraduate learning process and puts forward the corresponding measures. The model of " Flipped Class and Learning Procedure Evaluation " adheres to the teaching concept of student-centered, is committed to making students become the main body of teaching, stimulates the autonomy and enthusiasm of students' learning, and constantly improves the students' learning process, which is of constructive significance for promoting the development of advanced mathematics.

Keywords

Flipped Class; Learning Procedure Evaluation; College Students; Learning Process.

1. Introduction

With the development of the times, the society's requirements for college talents have gradually changed from "leaning toward academic performance" to "tending to work ability", changing the traditional basis for evaluating students' individual abilities based on academic performance, and indirectly influencing the development direction of various scholarship selection systems in colleges and universities. However, the change in social requirements does not mean a complete farewell to the requirements for students' academic performance, students' academic performance is still an important basis for reflecting students' professional ability. Many university students only realize that they need to cultivate the ability to work suitable for the development of the industry in advance, ignoring the basic requirements for academic performance that much college students' professional knowledge after employment is not solid, which seriously affects the healthy development of the industry. Compared with key universities, students in ordinary colleges and universities have weak learning ability, so appropriate teaching models and learning methods are particularly important. With the rise of the "student-centered" teaching concept, the learning process of college students has received more and more attention, and the traditional resultful learning evaluation based on test results as the main evaluation method can no longer fully meet the requirements of the development of the times, so starting from the process learning evaluation theory, combined with the teaching concept of " Flipped Class ", in-depth exploration of the influencing factors affecting the learning process of college students and proposing reform measures are of great significance to today's advanced mathematics and even social development.

2. The Theoretical Basis of the "Flipped Class and Learning Procedure Evaluation" Model

"Flipped Class" refers to the readjustment of time inside and outside the classroom, professional knowledge from the teacher's classroom to the student's self-study before class, the initiative and decision-making power of learning to transfer to the student, and the class mainly discusses deeper issues, students plan the learning content independently after class, independently grasp the learning rhythm, promote personalized learning, so that students can be more active and flexible in practice to obtain more real learning. Process learning evaluation as a kind of practical activities in education, with the birth of school education and existence, with the development of education construction theory and deepening, the theory is in the planning and implementation of education, teaching activities, in order to understand the effect of the dynamic process, timely feedback information, timely adjustment of the behavior in the process, so that the practice activities continue to improve in order to achieve the expected purpose. While conducting evaluations, it advocates those students develop through a variety of activities in the curriculum. Compared with the process learning evaluation and the outcome learning evaluation, the educational goal is transferred from the educational outcome to the educational process, more attention is paid to the learning process and learning experience of students, and more emphasis is placed on the interaction between the teaching instructor and the student in the educational process, so as to promote the continuous reorganization and construction of students in knowledge, reduce the difference between existing knowledge and target knowledge, and control the direction of knowledge transfer, thereby improving the learning efficiency and learning effect of the learning process of college students [1].

The " Flipped Class and Learning Procedure Evaluation " model is to improve the quality of teaching and teaching results, the concept of "Flipped Class" is adopted for teaching reform, in order to ensure that students can truly adapt and be developed in this educational model, with " Learning Procedure Evaluation " supervision to promote students to improve their ability to learn independently, in order to improve students' learning enthusiasm and obtain better learning results, is a mixed, inquiry-based learning method. The educational theory requires that on the basis of the student-centered concept, it is not only necessary to start from the traditional teaching methods, but also to grasp the aspects of students' learning attitudes and school atmosphere, and attach importance to the diversification of students' learning process assessment, so that students can learn more autonomously sexuality and innovation, in the learning process can not only improve the ability to learn, but also enhance the awareness of using the Internet to retrieve resources, supervise the student learning process with dynamic process learning evaluation, and ensure the output of student learning results.

3. The Influencing Factors of Undergraduate Students' Learning Process are Analyzed by the Theory of "Flipped Class"

3.1. Pre-class Factors: Students Lack Motivation to Learn and Suitable Learning Methods

"Flipped Class" emphasizes students' enthusiasm for independent learning, and students' Pre-class learning is an important prerequisite for the implementation of Flipped Class. However, after investigation, it is understood that learning methods such as "coping style", "temporary holding Buddha's feet", and "reading at night at the end of the semester" are the most common learning methods used by some undergraduates. As these methods can enable students to pass the exam in a short period of revision, so this part of the students are not willing to spend more time on independent learning before class, which directly leads to teachers in the classroom to transfer knowledge slowly, the class needs to spend a lot of time to explain the basic theoretical

knowledge that students can have learned by themselves, which in turn makes the course teaching inefficient and low-quality, the student learning effect is not good, and seriously affects the student learning process. In addition, some students use learning methods that are not suitable for themselves to learn before class, spending a lot of time but only gaining less. Not only affects the efficiency of students' lectures, but also greatly frustrates students' enthusiasm for learning, makes students feel more painful about classroom teaching and seriously affects their learning process [2].

3.2. Classroom Factors: Students are Susceptible to Interference from Electronics in Class

Another important basis for the implementation of the "Flipped Class" is that teachers and students discuss with each other in the classroom, interact well, and expand students' knowledge in the exchange and discussion. With the rapid development of the communication industry, mobile phones have almost become an indispensable communication tool in the lives of college students, and mobile phones have brought great convenience to their daily lives, but at the same time, they are also affecting some of their weak self-discipline ability. Students' learning efficiency and motivation. After observing and understanding the classroom learning of students in Guilin University of Electronic Technology, it is found that only a very small number of students hardly use electronic products in the classroom. The result reflects the electronic products will greatly distract students' attention in the classroom, making the student class participation rate is low and the interaction between teachers and students is less. In addition, it is difficult for teachers to spend a lot of classroom time on strict classroom discipline in the face of tens or hundreds of students, which brings great difficulties to improve students' enthusiasm for classroom discussion, and the poor classroom learning effect seriously affects the learning process of students.

3.3. Classroom Factors: Traditional Teaching Methods are not Adapted to Today's Teaching

"Flipped Class" emphasizes students' self-study, supplemented by teacher guidance, and aims to exert students' enthusiasm for learning. However, due to the influence of traditional teaching concepts, many teachers still adhere to the traditional teaching concept, lead the students' curriculum learning, and mechanically instill the textbook knowledge into the students in the classroom, the teaching style lacks innovation and interest, and students lack the enthusiasm and initiative to learn, which will lead to teaching inefficiency and influence the learning process of students' learning. However, with the development of the information age, students' access to off-campus information, learning resources in the way and type began to diversify, the traditional classroom teaching has not been able to stimulate students' enthusiasm for learning. More vivid and interesting, more efficient classroom teaching methods are the requirements of society to college teachers, these are requirements of students to teachers, innovative integration of the concept of "Flipped Class" into subject teaching is an important breakthrough point [3].

3.4. After-school Factors: Lack of Students' Mobile Learning Ability

"Flipped Class" not only requires students to give full play to their enthusiasm for learning before class, but also requires students to use other learning resources to consolidate and improve knowledge after class. The information age makes people's lives more convenient not only in life but also in learning, a variety of learning resources fill students' lives, students have more opportunities to contact high-quality learning resources. In contrast, students' learning concepts have not changed, and they still believe that passively accepting classroom teaching is the whole learning process, ignoring the importance of independent learning and independent expansion. At the same time, in the era of the Internet, the convenience provided by the Internet

cannot be well applied to the learning process. Therefore, the lack of mobile learning ability has also become one of the important reasons for the gap between the academic performance of college students, college students only learn to use the resources and convenience brought by the information age can better promote the improvement of learning ability and adapt to the development of the information age [4].

3.5. Environmental Factors: The Selection System for University Scholarships

The academic atmosphere of colleges, various awards, and appraisal systems play an important role in the orientation of students' learning. With the continuous development of the times, the society needs talents for all-round development, which indirectly requires college students to have both efficient learning ability, preliminary work experience, work ability, and more comprehensive development in all aspects of morality, so the selection requirements of college scholarships are gradually transformed into comprehensive assessment. This guides the direction of college students' efforts during college, and at the same time, it affects the learning process and learning results of students. Multi-faceted assessment standards require students to learn professional knowledge no longer simply, but to pay more attention to participating in physical exercise. Knowledge competitions, volunteer activities, student work and other activities in daily life, which occupies part of the students' learning time to a large extent, and even leads to students spending a lot of study time to participate in various scholarship selection plus activities and spending less time to learn theoretical knowledge. The original intention of the multi-faceted assessment system of scholarships is good, but many colleges and universities copy the appraisal and appraisal system of key universities is not suitable, and the learning ability of students in different colleges and universities is different. For students in ordinary colleges and universities, mastering professional knowledge requires more time to learn, and according to the system orientation of scholarships, it is necessary to "take the initiative" to spend more time participating in various extracurriculars Activities, in order to strive for various types of scholarships, some students will master the test-taking skills of certain courses in a short period of time, ostensibly creating students with high learning ability and outstanding comprehensive ability, but in fact, they have not really mastered the internal logic of professional knowledge. This seriously affects the long-term learning process of students, making the student function backwards, and the orientation of scholarships becomes utilitarian.

4. Improve the Learning Process of Students with "Process Learning Evaluation"

4.1. Students Develop the Initiative to Learn and Master the Learning Methods

There are significant differences in the learning process between college students and high school students, which are mainly reflected in the difference between the initiative of learning and the difference in learning methods, it plays a vital role in the learning process of college students. Undergraduate career planning is the first thing for college students to be clear after entering the university, which not only affects the current learning behavior, but also affects the future career planning of students, appropriate planning can promote students to improve autonomy and enthusiasm in learning, and students without clear planning are more passive learning. University life is rich and colorful, with the transformation of the teaching environment and teaching mode, the school no longer stipulates strict learning and rest time, students have more flexible arrangements for spare time, which will also lead to some students gradually losing self-discipline and beginning to lose themselves. However, for college students, learning is still their own job, cultivating the good qualities of self-discipline, perseverance, and courage to overcome difficulties, reflecting on their learning attitudes in the learning process

with "process learning evaluation", constantly adjusting their learning attitudes and learning methods, supervising themselves and evaluating themselves in the learning process to achieve the effect of continuous improvement. At the same time, the "process learning evaluation" supervises the learning process of students, which is also conducive to the continuous optimization and transformation of the "Flipped Class" personalization and plays an important role in the subsequent improvement and development of the student learning process.

4.2. Students Improve Their Ability to Inspect Resources and Mobile Learning

The rapid development of information technology also means the rapid development of knowledge, knowledge is receiving more and more attention in more fields, such as MOOC app and learning power app has pushed the sharing of online learning resources to universalization. As a new generation of college students who develop with information technology, we should improve the ability to use information technology to search for learning resources and improve online learning. College students should learn to transform electronics into tools for assisted living and learning. "Flipped Class" requires students to learn active learning outside the classroom, so starting from " Learning Procedure Evaluation ", give full play to students' subjective initiative, urge students to develop the ability to use the Internet to retrieve learning resources, improve mobile learning, consolidate and expand subject knowledge through off-campus learning videos and learning materials It can ensure that the learning process is not limited by the traditional learning tools of time and place, and breaks the limitations of the traditional learning process.

4.3. Teachers Innovate Classroom Teaching Concepts and Teaching Methods

The educational concept of "Flipping classroom" points out that teachers should guide students to learn to think actively in the classroom and enrich and supplement the knowledge points that students do not have enough self-learning. However, the traditional teaching concept is more based on theoretical teaching, supplemented by practical operation, the classroom is a classroom where teachers unilaterally transmit knowledge, students passively and passively accept the knowledge instilled by teachers, which reverse push students to cultivate the initiative and enthusiasm of learning. Therefore, teachers in colleges and universities should innovate the classroom teaching mode, encourage students to think about problems in the classroom from the perspective of professional knowledge, apply knowledge to life, and at the same time enhance interaction with students, break the traditional dull classroom atmosphere, encourage students to cooperate in answering questions in the classroom, and establish friendship with students, which is conducive to cultivating students' ability to express and communicate. It is also conducive to examining the learning results of students in the Pre-class class and promoting students to cultivate the initiative and enthusiasm of learning. In addition, classroom teaching should also keep up with current events, close to life, infiltrate online education into offline teaching, provide students with multi-faceted teaching resources, scenario professional knowledge, enhance the fun and understandability of the curriculum, stimulate students' enthusiasm for classes to achieve the purpose of improving classroom efficiency, and organically combine online learning resources to achieve the integration of online resource sharing and offline teaching. It not only enriches the teaching methods, but also improves the quality of teaching.

4.4. Teachers Improve the Assessment Methods of Teaching

Assessment is an important basis for evaluating the learning process of students, and the traditional assessment mode of colleges and universities is mostly oriented to "outcome learning evaluation", which combines the final examination paper score with the usual score to form a comprehensive assessment score. However, in the traditional course assessment, the final exam is mainly based on theoretical knowledge, lack of innovation and extension of the

discipline, students can grasp the direction of the exam by grasping the focus of the course, making learning more and more utilitarian and one-sided. College teaching is often a large class teaching, and the course teaching time is limited, it is difficult for teachers to record the classroom performance of each student in time, and mostly use classroom attendance to evaluate students' usual performance, which makes the establishment of usual grades formal. The traditional assessment mechanism not only cannot become a driving factor to promote students' learning but also will make the student's learning process become formal and superficial, students have not studied the knowledge that should be explored in this discipline in depth, so the assessment method is particularly important for students' learning process. " Learning Procedure Evaluation " pointed out that the learning process of assessing students should not only be based on students' learning achievements, but also pay attention to the supervision and guidance of this evaluation on the learning process of students, so that it can become an important tool for students to improve the learning process, and constantly let students understand the dynamic assessment results, so as to continuously improve the learning process of students and stimulate students' learning autonomy and enthusiasm.

4.5. Universities Create a Strong Academic Atmosphere and Improve the Rules for Scholarship Selection

In addition to the differences in students' individual abilities, the academic atmosphere of the school also has an important impact on the learning process of students, which is also an important reason for the gradual opening of the gap between students in many key universities and students in ordinary undergraduate colleges. Therefore, colleges and universities create an academic atmosphere, support the academic creation of teachers and students, provide more creative platforms for teachers and students, continuously improve students' enthusiasm for participating in academic activities, promote the integration of students' learning and academics in a strong academic atmosphere, and continuously motivate students to exert their enthusiasm for learning. At the same time, colleges and universities should continue to improve all kinds of scholarships and evaluation rules, so that their scoring rules continue to adapt to the development of students in their institutions, which not only plays a guiding role in the learning process of students, but also promotes the all-round development of students.

5. Conclusion

The " Flipped Class and Learning Procedure Evaluation " model aims to improve students' learning autonomy and enthusiasm in three aspects such as "Flipped Class" with the concept of "Flipped Class", and to make the school learning environment more conducive to the development of students' learning process, and " Learning Procedure Evaluation " is to ensure that the concept of "Flipped Class" is effectively implemented, and the assessment and evaluation run through the whole process of learning of college students, which is an important means to stimulate students' interest in learning, improve learning efficiency and learning effect. Based on this theory, this paper explores several important factors that affect the learning process of ordinary college students, and proposes feasible improvement measures, but this paper only takes Guilin University of Electronic Science and Technology as the main research group, and more other factors affecting the learning process of students need to be further explored and discussed.

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