Analysis of the Current Situation of Ubiquitous Learning Teaching Model Based on Sub-Classes

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Abstract: Traditional teaching methods are more and more influenced by the rapid development of the Internet, especially the modern popular smartphone, which creates favorable conditions for the extensive learning of the curriculum. Based on the ubiquitous learning model of sub-classes, learning potential can be tapped, their learning enthusiasm can be increased, and their ability to discover and solve problems can be trained, so as to improve learning efficiency and teaching effect. This paper analyses the current situation and practical effect of applying the ubiquitous learning model based on sub-classes in different courses of higher education, with a view to providing some reference for the application of the ubiquitous learning model based on sub-classes in the field of higher education teaching.

1. Introduction

With the rapid development of Internet technology, it provides a more convenient learning technology environment for educators and learners, and the way of learning also transits from digitalization to ubiquitous learning. In order to keep up with the times, educational concepts and modes need to be constantly updated. They complement each other to promote the development of education and teaching. The ubiquitous learning teaching mode based on separate classes is also put forward on this basis. Introducing the ubiquitous learning model based on separate classes in combining students' thinking and interaction, can effectively mobilize students' learning enthusiasm, cultivate their autonomous learning ability and improve students' comprehensive quality.

2. The Concept of Divided Classroom and Ubiquitous Learning

The core idea of the sub-class is "half time for teachers to teach, the other half for students to discuss, and stagger the teaching and discussion time, so that students have a week after class to arrange their own learning, personalized internalization of absorption" [1]. The teaching of sub-classes can be divide into three important stages: lecture, internalization, absorption and discussion. We should advocate the idea of taking students as the main body and teachers as the guidance, enhance classroom interaction, and give full play to the potential of students' self-learning, so as to further enhance students' comprehensive application ability to the curriculum.

Ubiquitous learning is an intelligent learning environment provided by the network. Anyone can use the learning equipment anytime and anywhere in any way to obtain any learning content and learning support needed [2-3]. Nowadays, the popularity of smart phones has provided favorable conditions for ubiquitous learning. And a single teaching method can be changed. The continuity, interaction, initiative and situational nature of ubiquitous learning process enable learners to make full use of fragmented time to learn, thus effectively improving learning efficiency.

3. Analysis of the Current Situation of Ubiquitous Learning Teaching Model Based on Sub-Classroom

Nowadays, students have poor self-consciousness and self-study ability. The traditional teaching mode has no effect on most college students. In recent years, our country has changed the traditional "cramming" and "inculcating" teaching modes. The ubiquitous learning teaching mode in separate classes has been widely used in the teaching of various liberal arts and science and engineering courses in higher education, and good teaching results have been achieved.

3.1 Analysis of the Present Situation of Ideological and Political Education

In the sub-class mode, the teacher leads the students to analyze the basic framework, concepts, difficulties, practical purposes and practical significance of some ideological and political theories, leaving the remaining time for the students to learn relevant knowledge on their own. Despite the new conclusion of Ideological and political learning, students with weak ideological level do not have an advantage.

Ubiquitous learning mode, with the help of the Internet, has created a better platform for ideological and political education. Students do not need to think about empty and abstract problems, learning becomes more concrete. Although this mode strengthens students' thinking ability, there are still many problems in the real implementation process, such as disorder and lag. The combination of sub-class and ubiquitous learning mode can improve the teaching effect to the best. After recording the theoretical knowledge or current affairs of Ideological and political education, while students use the network platform to carry out ideological and political education, while students use the platform to internalize and expand their thinking, carry out "spontaneous combustion" education indefinitely, cultivate students' interest in learning and develop their potential [4]. The original intention of Ideological and political education for students is to closely link the accumulation of students' skills with their inner character.

3.2 Analysis of the Current Situation in the Teaching of Algebra

The independent classroom teaching mode emphasizes that students are the learning centers under the guidance of teachers and change the roles of teachers and students. However, for some difficult algebra problems, they can only think and solve with general thinking. Using the Internet's ubiquitous learning model provides students with a higher learning platform. Teachers and students can learn algebra professional knowledge through the network, master the rich information related to algebra, and accelerate the speed of students mastering algebra professional knowledge. However, the use of the universal learning model alone cannot take care of students with insufficient professional knowledge or weak understanding, which is not conducive to balancing the development of students' logical thinking ability. The ubiquitous learning model makes up for such shortcomings. Therefore, the combination of the two teaching modes can give full play to its special teaching effects. Algebra teaching can be divided into three stages: pre-class preparation stage, classroom teaching practice and after-school instruction. The pre-class preparation of the professional course directly determines the quality of the teaching effect. In the process of classroom teaching practice, the theoretical knowledge is first taught, and after the students discuss it themselves, the teachers and students discuss and summarize. After-school assignments are conducive to the expansion and extension of students' extracurricular knowledge. But for the incomprehensible algebraic knowledge, you can use the Internet to verify your own ideas, and for different solutions to algebra problems, even do targeted exercises.

3.3 Analysis of the Current Situation of English Teaching

Under the sub-class model, teachers teach students the key and difficult points of this class in detail. However, English teaching is more professional and difficult to give consideration to students with different foundations. Compared with students with weak foundations, this kind of teaching model can not improve students' English level, that is, it can not meet the needs of

different students.

The two independent teaching modes are integrated to complement each other. Under the ubiquitous learning model based on separate classrooms, teachers' teaching can be combined with the Internet, such as watching videos and playing listening materials. Specific practical methods can be divided into in-class and out-of-class: teachers make full use of PPT, micro-video, online communication and other forms of English learning resources in class, explain the core content of the class and get feedback information; after-class students carry out personalized independent learning, expand English professional knowledge.

4. Practical Effect of Ubiquitous Learning Teaching Mode Based on Separate Classes

4.1 The Practical Effect in Ideological Education

In the process of College Students' ideological and political education, teachers should take students as the center of learning, play their own guiding role, and use convenient network information technology to guide students to study independently. Teachers should combine their own teaching experience and rationally apply this teaching method to ideological and political education so as to improve students' ideological awareness. The application of the ubiquitous learning model in Ideological and political education based on sub-classes has effectively improved the teaching effect compared with the unused one.

4.2 Practical Effect in Algebra Teaching

Algebra is a highly abstract, strong logic, deep theoretical course. The traditional teaching mode will make students have negative psychology, greatly reduce the quality of the algebra course teaching. However, based on the ubiquitous learning teaching mode of the classroom, it is possible to simplify the problem of abstraction, and students can grasp the true meaning of it. It provides students with a new classroom experience that differs from the traditional teaching model in reducing the stress of teachers and the transformation of roles between teachers and students[5]. Comparing the ubiquitous learning teaching model based on the dichotomous classroom with the traditional teaching model as shown in the following table (see Table 1), the advantages are obvious.

Traditional	Teaching	Use this new teaching mode	
Model			
There is	little	1.Innovation of	(1)Teacher-student interaction in higher mathematics teaching
communication	between	Traditional	activities and knowledge innovation
teachers and students.		Teaching Model	(2)To understand each other better and improve the relationship
			between teachers and students
Teachers write	on the	2.Teaching	(1)Teachers explain the key and difficult points of higher
blackboard	while	automation to	mathematics and help students construct knowledge structure maps.
explaining.		relieve teachers'	(2)Teachers have less time to teach and use Internet resources to
		working pressure	prepare lessons and guide them.
Teacher-led, students can		3.Role Transition	(1)Teaching link: Teachers are the imparters of higher mathematics
only obey		between Teachers	knowledge and students are the receivers of knowledge.
		and Students	(2)Internalization and absorption: teachers are the supervisors of
			learning and students are the explorers of knowledge.

Table 1 Comparisons between New Teaching Model and Traditional Teaching Model in Higher Mathematics Teaching

4.3 The Practical Effect in English Teaching

Apart from the students who are interested in English, very few students will use their spare time to improve their English majors. Therefore, the teaching effect of English course is very important for students. Applying the new teaching mode to English course teaching will eventually transform the learning results into high-quality homework and feedback. The process assessment can urge students to make use of the spare time to study and improve their learning initiative[6]. The effect of applying the new teaching model to English teaching is summarized in the following table (Table

Table 2 Based on The Practical Effectiveness Tables of the Ubiquitous Learning Teaching Model in Divided Classrooms

Practical Advantage	The Effect of Advantage
1. Providing abundant resources	(1)Improving Language Knowledge: Training at any time and anywhere
	according to one's own learning situation
	(2)Understanding and respecting multiculturalism in an all-round way
	and improving one's personality
2. Shorten teacher's teaching time and	(1)Improve students' information technology skills.
feedback information is true and effective.	(2)Individualized learning, enriching English professional knowledge
	and improving the utilization of resources;
3.Improve students' autonomous learning	(1)Students take the initiative to translate learning results into
ability	high-quality homework and feedback.
	(2)Process evaluation urges students to study and improves students'
	learning efficiency
4. New challenges for teachers	Teachers' participation in discussion and effective feedback.

5. Summary

Divided classes can make up for the shortcomings of traditional teaching mode in our country, pay attention to the communication between teachers and students, and constantly form bilateral activities centered on students and led by teachers. Ubiquitous learning mode cultivates students' autonomous learning ability, which is more conducive to promoting the development of bilateral activities between teachers and students. Modern educational technology updates the teaching concept, promotes the development of ubiquitous learning mode, and makes the teaching mode no longer single. Based on the ubiquitous learning teaching model of sub-classrooms, this paper interprets the existing significance of the new educational concept and teaching model, and promotes the further development of education cause.

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References

[1] Zhang Xuexin. PAD Class: A New Attempt in University Teaching Reform[J]. Fudan Education Forum, 2014(5):5-10.

[2] Tian Ling, Liu Huiheng. Preliminary Study On The Teaching Ability Of Independent College Teachers Under The Ubiquitous Learning Environment[J].Journal of Wuxi Vocational and Technical College, 2015, 14(1):8-10.

[3] Zhang Hongyan. Ubiquitous learning and its key technology research [J]. Education and Teaching Forum, 2014(3):277-278.

[4] Su Liuliu. Application Of Ubiquitous Learning Mode Based On Bi-classroom In College Students' ideological and Political Education [J]. Studies In Ideological Education, 2016, 258(1):90-93.

[5] Zhang Chunqin,Li Junhua,Tian Dazeng. Research and Application of the Classroom in the Teaching of Algebraic Courses [J].Journal of University Education,2019(3):93-95.

[6] Deng Yao. The Innovative Study of PAD Class of English Majors'Teaching Mode From the U-learning View-A Case Study of Elementary English[J]. Journal of Hubei University of Education, 2017, 34(11):108-111.

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