Research on Cultural Adaptability of Smart Teaching Model Based on BOPPPS

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Abstract. Construction of a smart teaching model based on BOPPPS is a joint product of the development of information technology and the progress of the times. Its application has generated a new teaching culture with the characteristics of democratization, diversity and inquiry. This teaching model is different from the traditional one in terms of teaching philosophy, teaching methods and evaluation system. Studies of cultural adaptation can resolve the conflicts brought by the new teaching model in terms of lifestyle and learning methods under the circumstances of the teaching culture and help students adapt to the development and promotion of smart teaching models. Therefore, their acquisition of knowledge and information can be expanded and their effective learning can be improved in order to obtain sound personal advancement and enhancement.

Keywords: Smart teaching; Cultural adaptation; Inquiry-based learning; Diversification

1. Introduction

With the rapid development of information technology, smart teaching, as a new form of teaching, plays a unique role in cultivating students' creative thinking and comprehensive thinking, which has become one of the mainstream development trends of modern education. Smart teaching refers to a technology-integrated learning environment, which allows the teachers to employ efficient teaching methods and helps the learners to obtain appropriate personalized learning services and wonderful development experiences so as to cultivate the talents with independent learning abilities and creative potential.

With the help of new information technology and smart teaching concepts, based on BOPPPS that a teaching method focuses on improving student participation, a smart teaching model suitable for new language teaching concepts has been built which caters for the characteristics and nature of different courses. It can organically combine classroom teaching and online learning. Meanwhile it can give full play to the role of teachers in inspiring, guiding and monitoring the teaching process, so that the students can make progress in their learning initiative, creativity and enthusiasm [1].

However, learning is a very complex problem and is restricted by various factors and conditions. Through promoting new smart teaching models and reforming traditional teaching models, we can solve the problem of "cultural adaptation" in the teaching field in order to provide the reference for promoting the development of smart teaching in modern classrooms.

2. Comprehension of Cultural Adaptability of Smart Teaching Model Based on BOPPPS

As an organic organizational form, classroom teaching will construct its own unique cultural model during its operation, which is called teaching culture. "Teaching culture, that is, classroom teaching culture, is the value system and behavioral patterns shared by teachers and students formed in the long-term classroom teaching process, as well as the environmental atmosphere that interacts with them.[2]" Teaching culture mainly includes the traditional teaching culture that is "teaching-oriented" and the modern one which is "learning-oriented" [2]. The former emphasizes memory and the inculcation of test-taking skills, while the latter advocates mobilizing students' learning initiative and enthusiasm in order to foster the students' ability of exploration and elaboration.

Researches show that when students make use of online platforms to study, their efficiency is higher than that in traditional classrooms, and their learning status is relatively more stable [3]. Teachers can integrate online and offline resources in accordance with students' requirements, and improve their teaching methods that can better meet their own teaching goals and students' characteristics. So their teaching forms will be more diversified and the integration of online and offline links can be enhanced. In this way can the optimal teaching be achieved [4].

In order to ensure the smooth implementation of the new teaching model, the original teaching methods, teacher-student relationships and evaluation methods will be changed. In addition, the behavior of teachers and students should be re-standardized, and classroom teaching activities should be re-designed. Therefore, the adaptability of teaching culture could be developed.

3. Construction and Cultural adaptability of Smart Teaching Model Based on BOPPPS

3.1 Construction of Smart Teaching Model Based on BOPPPS

A smart teaching model based on BOPPPS is the production of the profound integration between the new information technology and the teaching activities and segments. The six-step teaching method of BOPPPS is created in British Columbia Institute of Technology. The entire teaching process is designed into six stages including "Bridge, Objective, Pre-assessment, Participatory Learning, Post-assessment and Summary". It highlights the characteristics of "teaching goal-oriented and student-centered". The teaching design starts from attracting students' interest in learning, and informing the teaching objectives before class to achieve goal orientation. Then the pre-study tests on students will be conducted to know more about their knowledge and ability reserves, which provides evidence for designing the interactive participatory teaching activities. After the accomplishment of the teaching activities, a test or questionnaire will be distributed to students in order to check their mastery of knowledge. Finally, a teaching summary will be made. This model adjusts the sequence of classroom teaching links, teaching time and location. Meanwhile, its teaching form is changed from traditional classroom teaching into a cross-media smart teaching, which is characterized of the superposition of four components involving network resources, network interaction, offline class, evaluation and feedback". It can realize the combination of in-class and outside class activities, online and offline teaching and learning, theoretical and practical knowledge. Its specific application mode is shown in Fig. 1:
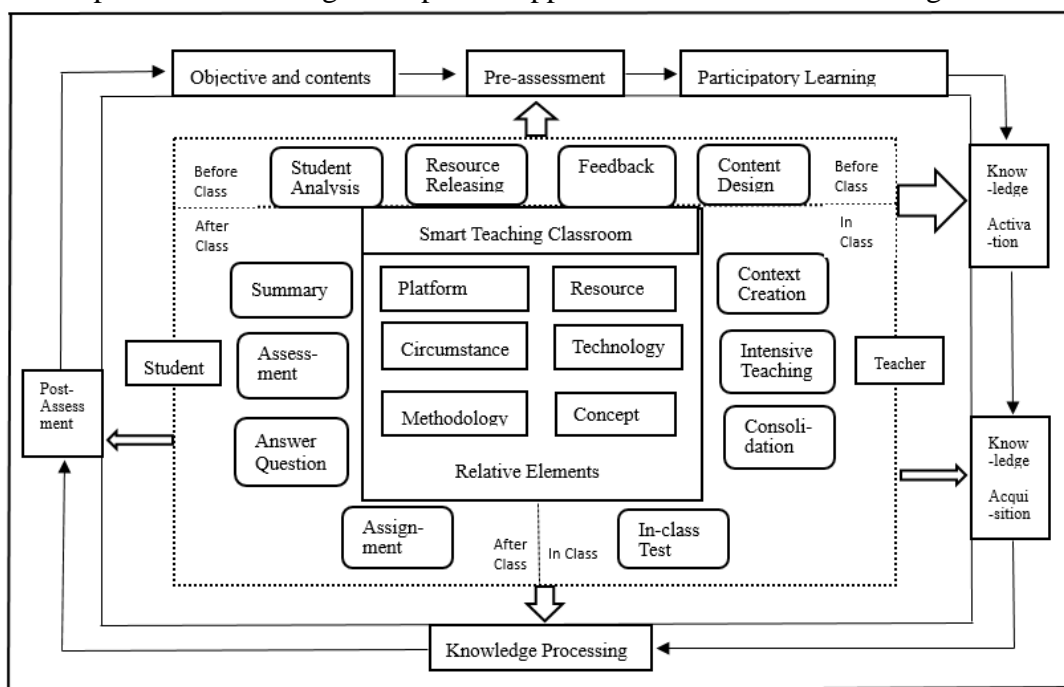

Figure 1. Structure of Smart Teaching Model Based on BOPPPS

3.2 Cultural Features of Smart Teaching Model Based on BOPPPS

According to the Statistical Report on China's Internet Development released by the China Internet Network Information Center (CNNIC) in August 2023, as of June 2023, the number of Internet users in China reached 1.079 billion, and the Internet penetration rate reached 76.4%. The Age Distribution of Chinese Internet users is diversified. The top four on the list are 30-39 years old (25.6%), 20-29 years old (24.5%), 40-49 years old (18.2%) and 10-19 years old (12.3%). The proportion of Chinese netizens using the Internet for education is 65.3%. And the number of online education users in China has reached 520 million, accounting for 49.5% of the total number of netizens. [5] The development of Internet has brought about historic changes in education methods. Internet information has become an important channel for college students to obtain knowledge and various information, and has had a profound influence on college students' study and life. The Smart Teaching Model Based on BOPPPS is mainly designed for college students. Teaching resources (videos, audios, documents, etc.) are released to students in advance, and they are about to be organized to discuss and solve their doubts and problems during classroom teaching. After-class tasks and evaluations can be completed online. This model emphasizes the interaction and instant feedback between two main subjects of teachers and students. With the completion of the on-line assignments and evaluations after class, it can efficiently realize the progressive learning transition, following the sequence of "knowledge transmission", "knowledge internalization" and "knowledge expansion". Consequently, the transformation from shallow learning to deep learning can be realized.

Some scholars believe that the activities which have been carried out on the internet will be called network culture since this new form of culture is based on the network technology and resources, and exhibits in digital forms [6]. It has the following cultural characteristics in modern education:

3.2.1 Being Democratic of Relation between Behavioral Agents

First of all, teachers should reasonably design teaching content before implementing teaching activities, and clearly divide them into two parts. One is suitable for the students to conduct their autonomic learning, while the other is used for class discussion. The contents and activities, which will be designed by the teacher, should take the features of the courses and the cognitive characteristics of the students into consideration. And the application of teaching methods should be student-centered. The network technology will be an assistant to help students realize the process of learning, testing and feedback, which might be easier for the students to detect problems. In-class activities, including discussions, questions and answers, group-work representations and lecturing, should meet the students' individual needs. In this way can the students' subjective experience be realized and an equal and harmonious teacher-student relationship is established. Thus, a democratic classroom culture has been taken into shape.

3.2.2 Diversification of Teaching Subjects and Resources

Characteristics of this smart teaching model lie on application of information technology, which can bring together a wide range of teaching resources characterized for its broadness and diversity. At the same time, with the help of the blended learning between "online resource learning" and "face-to-face classroom teaching", it breaks the space limitations of traditional classrooms and expands the scope of students' learning. Various forms of materials such as multimedia courseware, text materials, videos and audios are available for teachers to design the course and for students to study. Teachers and students can interact in various forms through cyberspace. Meanwhile, the teaching resources and contents could be constantly updated and enriched. Even the evaluation system will be changed a lot. Under this situation can a learning community be built?

3.2.3 Mainstream of Inquiry-based Learning

Information technology and multi-form teaching resources support the reform of the smart teaching model and complete the integration of "teaching" and "learning". Its goal is to realize the transformation of students' teacher-taught approach to self-motivated way. Thus, they will become the active builders of knowledge. Teachers select the resources according to the content and characteristics of the course so as to arouse students' interest. They can set tests and raise questions

in class for assessment and conducting discussions. The assignments after class can be given out for evaluation and knowledge consolidation. Mission accomplishment of knowledge learning can also be designed to help students discover problems independently and seek the relevant information. Through cooperative exploration, interactive communication and other activities, students can consciously assume learning responsibilities, complete the process of active inquiry, and promote the development of their own potential.

4. Cultural Differences between Smart Teaching Model and Traditional Teaching Model

4.1 Difference between Unified and Personalized Teaching Concepts

As for the traditional classroom teaching model, teachers tend to perform repetitive and mechanical activities. Most of them are implemented in a relatively "large class", which means the class size is large. However, every student has the differences in their knowledge foundation, learning habits, and cognitive characteristics. So it is difficult to meet individual needs.

Whereas, the smart teaching model of encourages teachers to harness modern information technology. Therefore, they can make the most of human-computer interaction technologies such as multimedia and video in teaching. This kind of teaching model features as modularization, structuralization, and being tridimensional. It can establish an intelligent, personalized, composite media-based learning environment [7]. So that students can obtain a learning experience that meets the requirements of their personal development. Based on the rich and diverse teaching resources, combined with online and offline teaching methods, a teaching model of "learning knowledge, discovering problems, and learning outcomes" has been constructed to cultivate students' attitudes, emotions and values.

4.2 Differences between "Teacher-centered" and "Student-centered" Teaching Methods

In traditional teaching classrooms, teachers are the masters and focus on lecturing and instilling information. The passive role of students let them develop learning inertia and form an inactive classroom atmosphere, which is not conducive to stimulating students' learning interest and initiative.

On the contrary, the smart teaching model changes the original teaching method and makes full use of mobile Internet devices such as mobile phones and computers for online resource learning before class to achieve students' independent, cooperative and inquiry-based learning. Then students have had the experience of independent learning, which better cultivates their sense of achievement and the quality of inquiring thinking.

4.3 Differences between Single and Diversified Evaluation Systems

In traditional teaching classrooms, students' learning effects are mainly assessed through paper-and-pencil tests on theoretical knowledge and other contents. The students' merits are dependent on their scores, and summative evaluations are accustomed to be used.

In the smart teaching classrooms, formative evaluation and diversified evaluation methods will be introduced to pay attention to the students' process performance and their personality differences. Through multiple evaluation methods such as teacher evaluation, self-evaluation, others' evaluation, and homework (task) evaluation, the combination of the evaluation tasks at each stage of teaching and the online feedback section will cover all the students' performance including before class, in class and after class. The evaluation is completed based on the pre-class activity evaluation form, homework (task) evaluation form, and student preparatory knowledge evaluation and feedback sessions in offline classes. The final assessment of the course will be composed of monthly exams (10%), classroom performance (10%), homework (15%), online resources learning (10%), modular knowledge learning (15%) and final exam (40%). Students' creativity and initiative will be perfectly mobilized to enrich every class and session. Teachers also need to adjust their mentality to face more challenges and constantly update their knowledge to improve their skills.

5. Conclusion

In recent years, the educational environment and the quality of education have been improved through the application of network and multimedia technologies. Construction of the smart teaching model based on BOPPPS has had a profound impact on the traditional teaching model and teaching culture. Therefore, new teaching models and classroom teaching also put forward higher requirements for the adaptation of teaching culture.

Promotion of the smart teaching model, in line with the learning characteristics of modern students, can cultivate students' good sense of learning efficacy, master efficient learning strategies, experience diversified learning methods, and shape strong cultural beliefs. Research on cultural adaptation of the new forms of classroom can help students adapt to reforms of the modern classroom teaching, who can correctly use network and multimedia technologies to promote learning and self-development, establish their own "subjectivity" in new cultural forms [8]. Consequently, a new cultural world is formed.

Acknowledgements

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