

Construction of Junior Middle School English Individualized Learning Model Based on Rain Classroom Teaching Platform

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Abstract: With the rapid development of information technology, information technology has become a research hotspot in the field of education. The era of personalized education based on information technology has arrived. Educational technology provides a good opportunity for personalized learning, and it is possible to realize the development and comprehensive development of students' individuality. Rain classroom as a wisdom teaching platform has been loved by teachers and students. It enables students to learn anytime and anywhere, and learn data visualization. Teachers can keep abreast of students' learning and mastery, and conduct personalized teaching according to student feedback. The rain classroom wisdom learning platform will have huge development space and application space. Therefore, this study takes the junior middle school English as an example, elaborates the individualized learning mode based on the rain classroom, and constructs the personalized learning mode from the three stages before, during and after the class. Finally, the personalized learning model is summarized.

1. Introduction

Since the beginning of the new century, personalized education has become one of the important signs of the reform of contemporary international education. In 1972, the "Learning to Survive" report published by UNESCO also promoted the comprehensive and harmonious development of human personality as the basic tenet of contemporary education [1]. In 2007, the expert group commissioned by the British government issued an important report on reforming basic education in the UK, the Vision 2020: Report of the 2020 Teaching and Learning Review Group. The report stated that "I hope that schools can treat every student fairly and make children Young people grow better," It is also suggested that the UK needs to reform the existing teaching methods and promote their individualized development through personalized learning and children's own characteristics [2]. In 2001, the Ministry of Education promulgated the Outline of the Basic Education Curriculum Reform (Trial Implementation). One of the key contents of the curriculum reform is to change the traditional learning style and advocate the individualized learning style characterized by "active participation, active exploration, exchange and cooperation" [3]. However, from the situation in recent years, the actual results are not satisfactory. Most schools still implement the "teacher-centered" traditional teaching model, and there are drawbacks such as experience-based teaching presupposition, uniform learning process, rough lag evaluation and feedback [4]. It is not possible to achieve "student-centered" and achieve personalized learning.

With the continuous development of educational informatization, information technology and teaching are deeply integrated, and the use of information technology in education provides a huge development opportunity for the research and practice of personalized learning. Students can freely choose learning resources and learn at their own pace according to their own needs. Teachers can clearly understand the learning trajectory of each student based on big data and learning analysis techniques. The use of modern educational media makes personalized learning no longer a theoretical utopia in the information society, but a free choice in daily life [5].

In the "Compulsory Education English Curriculum Standards" (2011 edition), it is proposed that

English learning is largely a personalized activity, and the traditional teaching model can no longer meet the increasing teaching needs. The development of big data and mobile Internet provides an indispensable opportunity and support for personalized learning. Therefore, this article takes junior high school English as an example, and uses the WeChat public platform rain classroom to conduct research on personalized learning mode.

2. Definition of Concepts

2.1 Personalized Learning

There is no unified meaning about personalized learning so far, and different scholars start from different angles. Xiangying Peng elaborated the concept of individualized learning from the perspective of educational psychology. On the basis of following the common law of students' learning, individualized learning, according to students' individual differences, through certain learning channels, utilizes effective learning strategies to develop potential, develop their strengths and expand their individual autonomy and unique learning activities [6]. Zhirong Zhong believes that individualized learning emphasizes individual differences as the starting point, students' interests and needs as the center, providing students with the best learning resources, methods and strategies, and realizing the maximum development of each student's ability and personality through students' autonomous learning activities [7].

This study believes that personalized learning means that learners choose their own learning objectives, learning content and learning styles according to their own cognitive level, learning style and interests, etc. in order to promote individual freedom, harmony and comprehensive development.

2.2 Rain Class

On June 16th, 2016, the rain class was officially released. It is a smart learning platform jointly developed by Xuetang Online and Tsinghua University. It is not limited to the use of smart phone WeChat platform, but can also be edited on the computer. Do a plug-in for PowerPoint, connect the PPT and the rain classroom by scanning the QR code. Before using the rain class, teachers need to download and install the computer version of "Rain Classroom". Teachers and students should pay attention to the WeChat public platform "Rain Classroom", and then the teacher creates a virtual class in the "Rain Classroom" to invite students to join. The instructor can prepare the relevant content PPT, test papers, voting, etc. on the computer before preparing for the class, and then publish it to the rain class for students to prepare before class or class. In the rain class, the teacher can post tasks, test papers, PPT, etc. Students can sign in, vote, receive tasks, send bullets, and click on "do not understand" on the courseware page that does not understand, mark feedback, conduct tests and get real-time feedback. The rain classroom can track the student's learning situation on its own, realize the process data collection, generate the classroom report in time, for the teacher to check at any time, understand the student's learning situation, and appropriately adjust the arrangement of the learning content as the basis for the usual results. The more powerful teacher-student interaction function provided in the rain class (pre-study feedback, class barrage, etc.) makes the communication between teachers and students more dense, enabling more efficient and effective communication [8].

2.3 Personalized learning Supported by the Rain Classroom

This study uses the rain classroom platform as a teaching tool to achieve personalized learning. It can be understood that: before the class, the teacher publishes resources for the students through the rain classroom platform, and the students can select learning resources suitable for their own learning characteristics according to their own situations. Conduct stratified teaching in class, and test and give feedback in time. Under the class, the teacher conducts a personalized design layered design according to the student's classroom mastery. Pre-class - class - the perfect combination of rain class after class, help teachers to comprehensively analyze the course data and student learning,

and conduct stratified teaching, teaching students in accordance with their aptitude, and providing students with personalized protection.

3. The Construction of Junior High School English Individualized Learning Mode

The ultimate goal of the personalized learning model based on the rain classroom teaching platform proposed in this paper is to cultivate innovative talents with individuality and comprehensive development. The basic mode is: teaching activities run through the class, during the class, after class. Before the class, the teacher releases the pre-requisite tasks. The learning resources can be PPT, test questions, videos, etc. for class, pre-testing and feedback, deep chemical analysis, learning to teach, optimizing teaching presets, and precise teaching; The teacher makes a difficult question based on the feedback of the preview, and questions or questions are issued, and the exercises or test papers are released for testing, so that the students can grasp the situation and adjust the teaching progress at any time. Students actively participate in the page, do not understand the page click "do not understand" or send a curtain to promote interactive communication; after class, through the classroom performance and data records, publish personalized homework, truly achieve a student-centered "one to one" Personalized counseling.

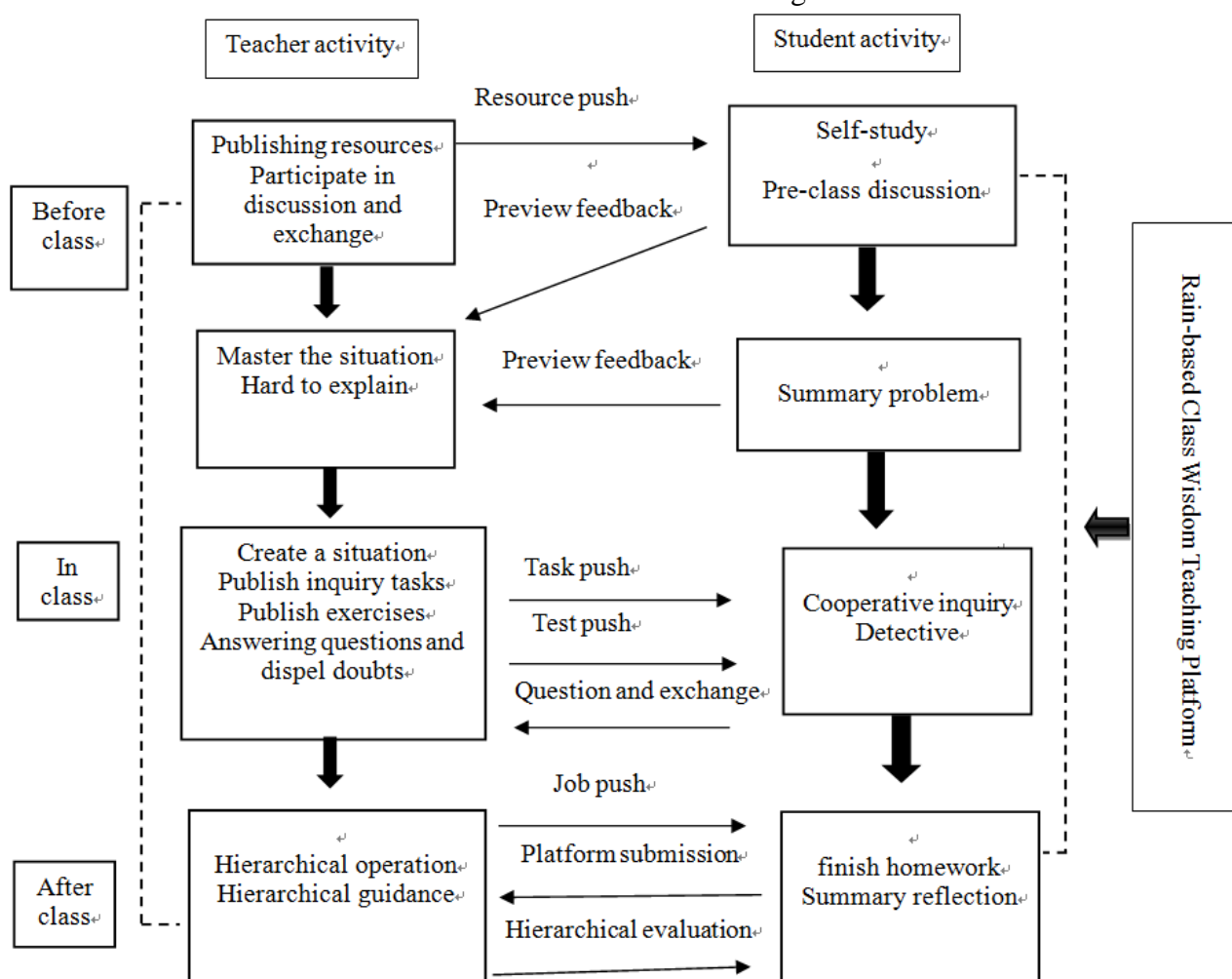


Fig. 1 Personalized learning mode based on rain classroom platform

3.1 Learner Analysis

Learner analysis mainly analyzes the characteristics of students, existing knowledge and experience, and students' cognitive ability. The characteristics of the students mainly include the age of the students, their interest in learning English, and their hobbies. The author had communicated with junior high school English teachers and learned that the junior high school students were significantly different in English level after entering the school because of the geographical

differences in primary school students and the imbalance of English education they received [9]. Primary school English is very interesting and can be accepted by all content students. Junior high school English is highly practical, and traditional mode is the main teaching, students may lose interest. Junior high school students are entering adolescence, and the difference between entering the puberty time will lead to differences in students' ability to understand and accept [10]. Based on this, differentiated teaching should be implemented according to the characteristics of students, with students as the center, layered teaching, and teaching according to their aptitude. To achieve personalized learning.

First, students can be stratified, telling students that stratification is only temporary, dynamic, and whoever progresses can rise to a higher level, otherwise it will be downgraded. In this way, it not only exerts certain pressure on students, but also encourages students to enter a virtuous circle of learning and avoid the “tag” effect after positioning [11].

Scholar Haiying Bo once divided the students into three levels: A difficult student B medium student C eugenics [12].

Table 1 Student level

Student level	Corresponding level
A. Difficult student	Insufficient interest in English subjects, poor self-confidence, lack of self-confidence, weak foundation, poor academic performance, and poor or difficult attitudes.
B. Medium student	The English subject is moderate or unstable; there is a certain degree of self-motivation, the learning method needs to be improved, or the habits need to be improved, or the learning attitude is not correct, or the self-management ability needs to be improved.
C. Eugenics	The purpose of learning is clear, self-management ability is strong; the foundation is solid, the learning ability is strong, the learning method is proper, the homework attitude is correct, and the English learning achievement is excellent.

3.2 Learning Goal Setting

The learning goal is the starting point and destination of the teaching activity, and it is also a clear description of the behavior that the learner should demonstrate after receiving the teaching. With the guiding content of the learning goal, the teacher can be targeted in the classroom teaching, and there is no learning in the design. When doing the task, try to focus on the learning objectives.

For different times, students should propose different levels of requirements and goals, which can be divided into basic goals, intermediate goals and high-level goals.

Table 2 Learning goal stratification

Student level	Corresponding target
A. Difficult student	Under the guidance of the teacher, I can understand the word phrases that the textbooks have learned, know their approximate meaning, and insist on not giving up.
B. Medium student	Can understand the most accepted words, phrases and basic sentences.
C. Eugenics	Can understand and master the words and phrases learned in the textbook, correctly imitate the basic sentence patterns in the text and "four meetings", will listen, speak, read, write.

This article takes the third unit of the seventh grade, "How do you get to school" as an example, First, word: train, bus, subway, ride, bike, sixty, seventy, eighty, hundred, far, kilometer, every day, etc. Second, sentence type: How do you get to school? —I ride my bike. How does Mary get to school? —She takes the subway. On the basis of the Four Meetings, the teacher will have a dialogue

with him, and he should be expressed on the basis of barrier-free and grammatical errors. As long as the middle school can reach the “two sessions” or “three meetings” in the drill, I can listen and understand, and I can understand it. Students with learning difficulties will read word sentences and understand the meaning.

3.3 Learning Content Design

Different learning objectives naturally correspond to different learning contents, and there must be some flexibility in arranging classroom exercises. For example, in addition to mastering word sentences, learning eugenics must learn to use it in daily life to communicate, not to cope with exams and to enhance understanding of traffic knowledge. A medium-sized student must master the words and express the basic sentences on the textbook. Students with learning difficulties will read the text sentences in the textbooks, and do not make specific requests like dialogue responses and word dictation [9].

3.4 Choice of Learning Methods

This study mainly adopts the methods of self-learning, cooperative learning, and inquiry learning.

3.4.1 Pre-class preparation

Before the class, the teacher makes a pre-reading PPT on the computer and sends it to the mobile phone. The teacher can add voice, and then publish the preview task on the mobile phone through the rain classroom, let the students listen and learn. At the same time, the task can set the deadline, and students who have not started the course preparation before the deadline will receive a reminder. In the pre-study course, the teacher can design the text, pictures, videos and other media resources related to this lesson. The video can be inserted into the MOOC free resources, or related to the content (the seventh grade of Unit 3) website video, currently mainly supports Potato, Youku, Tencent three major websites. The difficulty of the pre-study questions to be released should be hierarchical, so that most students can experience the joy of success. The types of questions should be diverse, and they can have choices, fill in the blanks, and vote.

Students mainly study autonomously before class, choose their own time and place for learning, and learn mobile devices. According to their own learning goals, choose appropriate learning resources, develop their own learning progress, and monitor their actions. Independently discovering problems and thinking about problems. If you don't understand, you can exchange and discuss in the discussion area. You can also click the “Don't understand” button on the courseware. The teacher will receive “not understand” data feedback and all behavior data prepared by the students. You can solve doubts in class or reply in the discussion area.

3.4.2 Questions and Answers in the Class

In the class, according to the feedback and preparation content of the students before the class, the teacher will explain the difficult points of the knowledge in a targeted manner, and summarize the problems existing in the students' pre-study into two categories: common problems and individual problems. After the knowledge points are finished, leave a few Minutes of time to explain.

First, the teacher creates a situation and leads the topic. For example, the topic of this unit is “How do you get to school”? The teacher can play a video about the various modes of transportation when students go to school, which is of interest to students.

Then, according to the content of the subject, an inquiry task is arranged, and the students are required to conduct collaborative research and express opinions on the learning tasks. The grouping here is a heterogeneous grouping based on differences in students' learning ability, cultural background, etc. in advance. For example, telling the transportation method when you go to school, which kind of transportation is the safest and most convenient, the teacher can find the representative of the group to answer.

According to the discussion of the students, the teacher will give a difficult explanation to the

text. At the same time, the teacher can open the barrage function. If students encounter knowledge points that they do not understand, they can ask questions anonymously, so that those shy students can dare to ask questions and further deepen the understanding of knowledge. Then set aside a few minutes to interact and discuss the problem of “do not understand” before class, and brainstorm the teacher to focus on the common problems of classmates. The personality problem allows the group to collaborate and discuss, through the observation of the group's discussion, the teacher personally guides the group. By solving individual problems through grouping, it not only promotes collaboration and communication among students, but also increases the initiative and enthusiasm of learning.

Finally, real-time testing, the teacher can set up some exercises (choose, fill in the blanks, vote, etc.) in the courseware, or you can publish the test volume separately. The setting of the exercises must have a certain gradient to meet the needs of most students. Through the class test, the rain class immediately feedbacks the problem and generates a histogram of the answer results. The teacher can consider whether to explain the problem to the student's answer, and make a selective explanation according to the knowledge point.

3.4.3 Consolidate after Class

According to the performance of the students in the class and the feedback of the learning data, the teacher has arranged the homework after the assignment to consolidate the knowledge. Students at different levels should design different levels of homework.

Different levels of homework should be designed for students at different levels. Homework can be divided into three levels. One: basic work Two: improving work Three: innovative and expanding work.

Basic homework: This kind of homework is a basic exercise, which mainly includes questions such as single choice and sentence imitation. Generally, the search for textbooks can find the answer, the quantity is small and the difficulty is low, in order to consolidate the basic knowledge and basic skills. The problem is to enhance the confidence of students with learning difficulties, reduce the psychological burden, and initially experience the success of learning.

Improving work: This type of work is usually a deformation or combination of the basic questions. It can be a single-choice, fill-in-the-blank, sentence-deformed and other questions. It is beneficial to improve students' ability to “make one in the third” by changing the problem situation and changing conditions. Secondary students can improve their knowledge structure and enable them to accomplish all their learning goals.

Innovative and expanding work: This kind of homework is difficult. Students who are optimistic are often unable to eat enough and need to add meals. Therefore, such questions are mainly comprehensive and extended, and can include questions such as single choice, fill in the blanks, sentence rewriting, writing, etc. Need higher cognitive level. It is conducive to learning eugenics to expand thinking, enhance vision and achieve personalized development.

The teacher will publish the homework through the rain classroom platform. The students will select the corresponding homework according to their own level. After the completion of the rain, the classroom will automatically generate the student's homework completion, and the teacher can receive the feedback data. Students complete the exercises, you can view their own wrong analysis, if you do not understand can leave a message in the discussion area, the right students can also express their opinions, the teacher can continue to help students with problems. However, the teacher should be guided by stratification, be patient and explain to the students with difficulties, and encourage them. For the flexible explanation of the middle school students, some suggestions can be given; the key points of the students should be explained and their potentials explored.

3.5 Hierarchical Evaluation

The personalized learning based on the rain classroom platform emphasizes the learner as the center, and its evaluation content mainly includes the level of knowledge ability acquired by the learner. The evaluation subjects include teachers and learners. The evaluation form will adopt a combination of formative evaluation and summative evaluation, which mainly emphasizes

formative evaluation, because it can help teachers and students effectively supervise the learning process and improve learning through the improvement of detailed problems. Effect [8]. Among them, the formative evaluation mainly evaluates the learner's online learning data through classroom participation, group performance, classroom test, and learning attitude. Summative evaluation is mainly carried out by summarizing the formative evaluation and the results of homework practice.

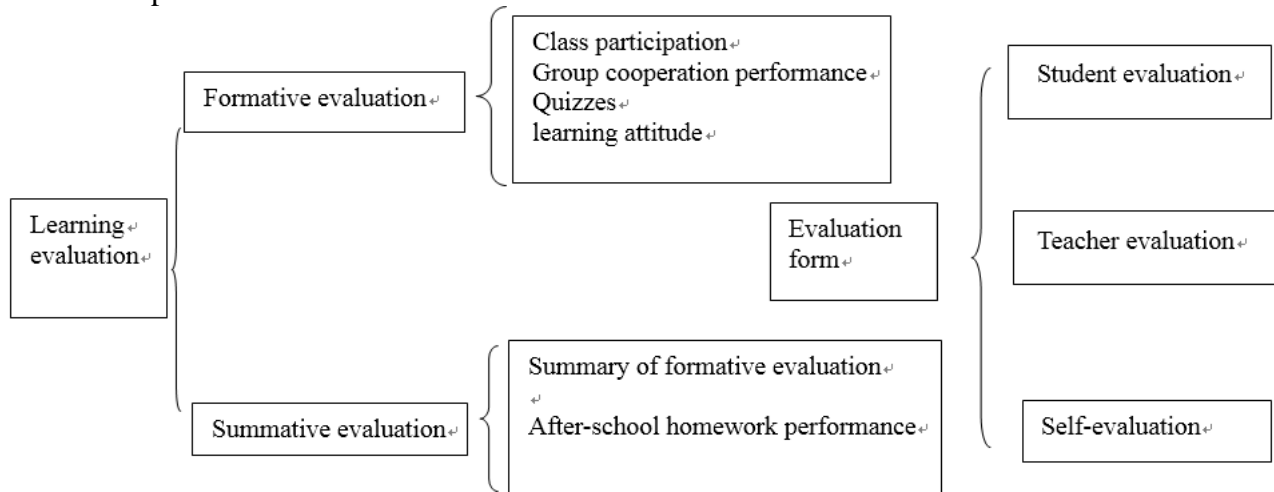


Fig. 2 Individualized Learning Evaluation

Because of the differences among students, the stratified evaluation method is adopted, and the emphasis on evaluation of students at different levels is also different. For eugenics, the use of horizontal evaluation requires them to apply new knowledge flexibly. Let them find a gap with other students at this level, and make them work harder. For middle-level students, teachers use a combination of horizontal and vertical evaluation methods, requiring them to use new knowledge simply under the premise of mastering the basic knowledge, pointing out that they are insufficient and motivating them to work hard. For students with learning difficulties, teachers mainly use vertical evaluation methods, requiring them to master the basic knowledge and encourage them to compare with their own yesterday. Look for the advantages that students at this level have shown in their studies, encourage them in a timely manner, give attention, and eliminate the inferiority and disbelief of students at this level [13].

4. Summary

Personalized learning is an inevitable trend in the development of modern education and a need for a learning society. Therefore, taking the junior middle school English as an example, this paper constructs a personalized learning model based on the rain classroom teaching platform, and designs personalized learning from the three stages before, during and after class, hoping to provide a theoretical level theory for frontline teachers. The framework guides them to follow this step to personalize learning in real time. However, in reality, the traditional education model is still ingrained. To achieve personalized learning, teachers also need to accept new educational ideas, change their minds, dare to try boldly, and continue to promote personalized learning.

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