Application of Gamification Teaching in Primary School

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Abstract: As IT develops rapidly and the nation attaches great importance to education, it is difficult for the original teaching methods to meet the requirements of current curriculum standards. Learning knowledge in a game-based way stimulates students' curiosity and desire to explore and enhances students' initiative in learning. It can effectively cultivate innovative ideas and deepen students' understanding of knowledge. The gamification strategy can not only make the classroom active but also improve the quality of teaching. However, there is no natural integration of gamification teaching in China. From the teachers' perspective, some school teachers are relatively old and do not know how to operate electronic equipment, and there is no professional training. In addition, integrating games and teaching naturally is also challenging from the perspective of software applications. This paper studies how to apply the gamification teaching method to the classroom based on the requirements of the new curriculum standard, analyzes the impact of the gamification teaching method on students, and the problems and solutions encountered in the application process.

Keywords: primary school, gamification teaching, school-based curriculum, teacher attitude, teaching effect

1.   Introduction

Gamification refers to using gaming in a non-gaming environment and incorporating gaming mechanisms into education to stimulate students' interest in learning [1]. Through interaction with students in the classroom, these games are of positive and educational significance, stimulating students' interest in learning and achieving the purpose of teaching. Completing the teaching goal is to serve the students' learning in the classroom. With the reform of curriculum standards, there is a significant conflict with traditional teaching methods. The use of gamification teaching methods is very attractive to students. The minds of primary school students are not mature enough. When playing games, the class will be thrown into chaos. How to grasp it well during lectures The game's scale is a concern, as well as the integration of the game setting with the psychological characteristics of elementary school students. Now that multimedia equipment has become an essential infrastructure in every classroom, Gamification can also bring many benefits to students, but it has not fully utilized the advantages of multimedia. Teachers treat multimedia as a decoration and use it only rarely. Moreover, it is easy to observe in elementary schools that there are many middle-aged teachers. This will cause old teachers not to use gamification teaching methods, or the school has not trained teachers, so they have not fully utilized gamification teaching roles.

2. Discussion

2.1. The role of Gamification in student development

Piaget's theory mentions that thinking in the elementary school stage is mainly based on concrete images, especially in the lower grades, and it is generally believed that in the fourth grade, there is a process of concrete to abstract transformation. In addition to this, games can help children master their environment and develop creativity [2]. Students' lack of participation and motivation in learning can be solved using games. When speaking about more difficult-to-understand knowledge, students have built knowledge by feeling the game, helping Students Improve Intrinsic Motivation [3]. The teaching technique of Gamification can show abstract knowledge concretely so that students not only get pleasure but also learn knowledge, arouse students' interest in learning, promote the development of students' cognition, and cultivate students' self-confidence [4]. The way of games aligns more with the psychological characteristics of elementary school students who are active and curious about everything. The introduction of games in the classroom is not only for students to play, but the more critical process is for students to ask questions and gain knowledge while playing. Some studies have shown that Gamification can help improve problem-solving skills and directly relates to improving learners' learning performance [5,6]. And also gamification teaching also emphasizes the fun of learning. With the help of the value of games to stimulate students' learning consciousness, develop students' ability of independent inquiry, and give students an immersive experience in learning, teachers also need to balance the relationship between games and knowledge.

2.2. The current problems faced in the primary school classroom

However, most elementary school teachers only teach the students in class by reading the words from their textbooks [7]. In Chinese teaching, teachers are used to making students memorize by rote. The thinking of coping with exams is wrong. As a result, students will not draw inferences from one instance, do not understand knowledge, and have rigid learning methods. Secondly, the Gamification of teaching methods in implementing the process is often formalized. Most of them are used to talk about the open class. In the process of lesson preparation, the teacher lacks the knowledge and game integration experience, and there is no clear teaching purpose. In the classroom, there will be a teacher's challenging grasp of the classroom. There is only an active classroom atmosphere, but the students do not know what knowledge they have learned. Such teaching cannot be a supporting role and wastes valuable classroom time. The game's setting should also be considered so that students can participate, not only the good students but also the poor students so that the significance of game-based teaching can be shown. There are many middle-aged teachers in Chinese elementary schools, and game-based teaching depends on information technology and electronic equipment. It is an excellent challenge for middle-aged teachers because they are not as quick to accept new things as young teachers. They are not as comfortable using them as young teachers. Schools do not give teachers IT management and learning, and it is challenging to have enough time to learn these technologies in their daily work [8]. Teachers express positive attitudes towards Gamification, but not many pedagogical methods that use Gamification in the classroom [9]. Teachers apply it to teaching without professional training based on their knowledge and understanding. Thus, the student feedback is poor, as students are very interested in the game, and at the same time, the teacher has to maintain classroom order during class, which puts some pressure on the teacher's work. In such cases, teachers will prefer to choose traditional teaching methods. In traditional education, it is difficult to keep students' enthusiasm and initiative [4]. Teachers support teaching Gamification to motivate students,

but they need further support to build on their implementation skills, mainly through further learning and practice [10]. Some studies show that teachers are interested in the pedagogical model of Gamification and have been trying to channel the game's intrinsic motivation and enjoyable experience to promote educationally relevant outcomes.

3. Methods of applying gamification strategies in the classroom

3.1. Provide systematic training for teachers

In the fast-developing environment, improving students' literacy and teachers is necessary to keep pace with the times, learn continuously, and improve their abilities. Teachers' professional development needs to use information technology to promote teacher-student collaboration by interacting with students in the classroom [11]. This requires schools and teachers to make concerted efforts to provide professional and systematic training and guidance to teachers and invite experts to demonstrate and explain the methods of Gamification so that teachers have a deeper understanding and learning of gamification teaching. The classroom can be used easily to stabilize the class order and create a good learning environment for students. Through centralized training, it is beneficial for teachers to select appropriate games according to the classroom content and the age and psychological characteristics of the students to stimulate students' interest, better grasp the classroom, and achieve the teaching goals.

3.2. Set clear gamification instructional goals

It is suggested that teachers consider using educational interactive games to enhance students' learning self-efficacy, positively related to their learning results [12]. The teacher should have a clear goal in writing the instructional design. Using the game frame helps and guides the teacher, improving the learning effect in the teaching process [13]. Gamification in the classroom provides a more relaxing learning environment for students, and through fun games, students can gain knowledge happily. It is also essential to consider many ways elementary school students are interested in games, and the teacher has to strike a good balance between the two in setting up the games. Teachers only focus on the game's content and how to participate in the design in advance. Using games, the teacher should also give timely supplemental knowledge so the students know what knowledge has been learned. Gamification significantly impacts cognitive, motivational, and behavioral learning outcomes [14]. Teaching objectives should be fully considered to promote student development.

3.3. Rich game-based teaching methods

In the new era, education needs to adapt to new models and operate new teaching tools. Gamification is diverse; there are many forms of Gamification, such as points, rewards, and other elements [15]. It can be role-playing in the classroom, acting out scenarios, riddles, snatch games, etc., expanding education content, supporting individualization of learning, and providing new types of education [16]. This is to make the classroom come alive, not only in the form of information technology multimedia. Under the requirements of the new standard, teachers should focus on the development of students, using a variety of teaching methods to organize classroom activities. Create a good learning atmosphere to satisfy students' curiosity and promote introducing students to learn new knowledge. To cultivate students' thinking abilities and improve their own quality. Different types of classes choose different game modes, and the requirements of the new standards pay more attention to the importance of the students as the main body of learning and thinking ability to learn. The gamification approach plays a significant role. Some studies have

shown that based on learning, educational computer games are reasonably designed to help students learn better [17]. The teacher uses multimedia devices in the classroom to set up the game to promote student learning. This type of gamification can help students learn more effectively because it gives them a better orientation toward their learning content [18]. Diversifying students' minds through games enhances their interest in learning. Diversified games facilitate students' knowledge acquisition and promote comprehensive skills development.

4.   Conclusion

Under the current stage of development, schools should pay more attention to cultivating students' all-round development. Teaching students can't use traditional teaching methods when giving lectures; keep up with the pace of the times. At the primary school stage, students have limited time to concentrate. Gamification teaching is conducive to attracting students' attention, giving full play to students' autonomy in learning, and creating a good learning atmosphere. Students gain and understand knowledge through exciting games and can solve different problems based on ability. The teacher selects games in the classroom based on the student's age and characteristics. Teachers should take the development of students as the fundamental goal and Maximize the advantages of gamification methods. Enhance classroom interaction, actively learn knowledge, improve classroom efficiency, and feel the charm of gamification learning.

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