Verification of the Effectiveness of Interactive Teaching Evaluation Based on Visual Computer Modeling Algorithm Platform

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Abstract:This study uses systematic evaluation method and meta-analysis method to compare and analyze the effect of gamification teaching and traditional teaching in order to obtain more scientific conclusions. This paper expounds the design of the algorithm-based animation-assisted teaching platform "Xiaohuaya", describes its teaching practice process, and verifies whether this method can stimulate students' interest in exploring and learning, and reduce teachers' teaching workload. The research explores the formal modeling and verification of service combination. and model-driven visualization techniques. Using the modeling method based on behavior description language, the test results show that the 16 classic experimental algorithms of artificial intelligence courses included in the platform can be clearly and dynamically demonstrated.

Keywords: Interactive Teaching Evaluation, Visual Computer Modeling, Modeling Algorithm Platform

1. INTRODUCTION

Gamification is the application of games or game elements, game design, and game concepts to non-game contexts (Kevin Werbach et al., 2014) [1]. The so-called interaction, according to the meaning of the word, is the process of interaction, communication and dialogue between two or more individuals. The interaction in people's social life refers to the process of interdependent behavior that occurs [2] between individuals in society, between groups and groups, through language or other means of disseminating information.

It will lay a good theoretical foundation for future work in computer-aided design and manufacturing, scientific computing visualization [3], computer graphics processing, graphics algorithm design, and graphics software development. To this end, the establishment of this course hopes to cultivate students from the following [4] four aspects. Computer science has developed rapidly in recent years. From computer system structure to algorithm data structure, from the bottom layer of hardware to the top layer of application software, it contains many complex concepts and theories [5].

Enable users to effectively utilize information and discover knowledge [6]. This paper attempts to apply information visualization technology to the subject navigation system. After analyzing the feasibility and [7] representation mechanism of teaching resource retrieval and navigation visualization, a model of teaching resource visualization retrieval and navigation is proposed. Finally [8], the open source software is used for experimental verification. Its importance is no less than that of other courses aimed at developing students' morality [9], intelligence and aesthetics. It is a planned, purposeful and organized teaching activity in colleges and universities. Combining computer-aided teaching with algorithm visualization is the development trend of classroom teaching related to algorithms or logic. Algorithm visualization [10], also known as algorithm animation, is an algorithm-assisted teaching technology developed since the 1980s.

The evaluation of physical education in colleges and universities [11] is an important part of physical education, and its effectiveness is closely related to the indicators for evaluating the quality and effectiveness of physical education in colleges and universities [12]. A platform-independent, low-affinity, self-contained, programmable-based application that can use open standards to describe, publish, discover, coordinate, and configure these applications for the development of distributed interoperable applications program. A teaching model with skills training [13] as the core. It has been widely used in many countries, especially developing countries. The so-called module is the process of producing occupational skills [14], which is divided into several activities according to the nature or sequence of activities. Improve the effect and profit of task completion [15].

Based on this concept, gamified teaching applies games or game elements, game designs and concepts to teaching situations [16]. Let different viewpoints collide and blend on this platform, thereby stimulating the initiative and exploration of both sides of the teaching, focusing on cultivating students' programming skills, enabling students to use high-level programming languages [17] and OpenGL-based graphics libraries to program, and analyze the principles of graphics algorithms, in order to improve the teaching effect of a teaching method. Interactive teaching attaches great importance to giving full play to the dominant position of students in the teaching process [18], emphasizing communication and dialogue, and promoting exchanges between teachers and students. Concrete and visualize abstract theoretical concepts, and make the algorithm implementation process that flashes traceable and repeatable. From literature review, questionnaire surveys and interviews, it can be seen that physical education in colleges and universities has experienced a long-term development [19].

However, after the reform of the traditional physical education teaching mode, the new physical education teaching mode characterized by forced feeding occupies a dominant position in physical [20] education teaching. Recovery will be

an effective way to solve the above problems. From a technical point of view [21], there are many possibilities for information visualization in a subject navigation system that provides retrieval and navigation for network information resources. First of all [22], the visual retrieval research for ontology knowledge base has attracted the attention of scholars at home and abroad, and students must rely on their own understanding to explore the execution process of the algorithm [23].

2. THE PROPOSED METHODOLOGY

2.1 The Visual Computer Modeling Algorithms

At present, most teachers use the "slide + teaching material" model to explain the principle and implementation process of the algorithm, and then combine the algorithm programming experiments arranged after class to complete the algorithm teaching, and give a method to classify service-oriented resources, the compositional modeling of classification services is analyzed using shading nets. In this method, the basic elements for describing a service include service resources, goals, states, and data information. The Freescale Embedded Lab of Soochow University developed an embedded MCU-assisted teaching platform in 2006. The platform uses GP32 as a carrier to successfully implement graphical programming and provide compiling and downloading functions. In actual use, it has achieved good results. But there are certain limitations.

In recent years, gamification teaching has received great attention from people in the field of education at home and abroad. Scholars have carried out a large number of experimental studies on the effect of gamification teaching. However, the research results are not the same, or even very different. It emphasizes heuristic education. Through inspiration and guidance, it fully explores students' ingenuity and intelligence, helps students gradually establish a subject consciousness, maximizes their enthusiasm for learning, and develops good habits of learning, thinking and research, so as to independently, Learn creatively. In recent years, with the continuous deepening of higher education reform, various colleges and universities have made substantial adjustments to the allocation of hours for professional courses, and computer graphics is a required course for computer majors

Algorithm visualization teaching refers to the dynamic display of algorithm implementation process in the form of algorithm visualization. . At the same time, the coefficient reflects the expert's cognition of the survey content, that is, the authority of the expert on the question, which mainly depends on the expert's understanding and decision-making on the question. Generally speaking, when the expert authority coefficient satisfies CA 0.7 or above, the result is acceptable. Visual display technology is mainly used to display the processed information in the form of graphics on the computer. The most basic visual display technology includes Focus+Context.

2.2 The Interactive Teaching Evaluation

Students still have difficulties in understanding abstract concepts and algorithmic ideas, and have not achieved good teaching results. According to the idea of transformation semantics, if the semantics of the language are known, and each component of the language is represented by the components of the language, then we have the semantics of the language. If you want to prove that a program written in a language has a certain property, you only need to rewrite the program in the language. Figure 3-5 shows the block diagram

of a typical MCU. It can be seen that MCU modules include internal modules and external modules. Internal modules include initialization module, SCI module, timer module, Flash module, serial port module, etc., and external modules include common I/O input and output modules, AD conversion modules, etc.

Systematic review is mostly used in the field of evidence-based medicine, and it has also been widely used in the field of social sciences in recent years. It is based on an extensive collection of the original literature on all relevant research on a problem. Traditional teaching is centered on teaching materials. Teachers only need to teach according to the content of the teaching materials, and there is little room for them to play. In interactive teaching, although the interactive content is still related to the content of the textbook, both parties need to fully mobilize their original knowledge and skill reserves to participate in teaching activities. In order to improve the problems faced by computer graphics courses, auxiliary teaching platforms such as Chaoxing Learningtong and Rain Classroom have been launched one after another, and have achieved very good results. Taking Chaoxing Learning Pass as an example, this course adopts the "pre-class preview, in-class teaching and discussion".

Among them, the core scheduling control module is responsible for the comprehensive scheduling of data transmission and storage, command sending and receiving, program interruption, single-step execution and start-stop control, file management, and document management of the entire system platform. If the rules are broken and the attitudes characterised by the 'motivation', such as fairness, justice, opportunit

2.3 The Visualization-Based Interactive Teaching Evaluation Effectiveness

By participating in sports, students can be present and undiscovered, the conditions of equal opportunity will no longer be courage, determination, tolerance, benevolence Learning knowledge and skills under the guidance of sports educators such as, loyalty, empathy, etc. If players place themselves on the moral qualities that define sports.

Physical activity can help people empower, develop tolerance, patience, solidarity, selfless adherence to rules, and create unfair situations. The tree diagram can display all nodes in the data hierarchy, and can also display information about individual nodes in the same view. The size of the graph in the treemap represents its relative size in the entire hierarchy, and other attributes are represented by colors, etc. Many researchers have carried out research on visual teaching and achieved many results. As early as the 1980s, the computer schools of world-renowned universities such as Georgia Institute of Technology, Massachusetts Institute of Technology, and Brown University have established a variety of algorithm visualization platforms. Behavior description language is a formal description language based on behavior, which can be conceptually divided into five levels.

From big to small, they are model, viewpoint, scene, composite behavior, and atomic behavior. These five-level concepts can exactly correspond to the five concepts in the service composition. The modular graphics development platform realizes a new way of human-computer interaction. The main purpose is to transform the boring assembly and C program programming work into embedded MCU development that can be completed by simply dragging controls and setting properties. The risk of bias evaluation of

the included studies was also independently evaluated by two investigators, who finally checked the results and ensured that the evaluation results were consistent through discussion or consultation with third parties. The above five forms of interaction have their own characteristics and functions, and can play a different role in cultivating students' understanding ability, expression ability, analytical problem-solving ability and spirit of unity and cooperation.

Correctly carrying out the interaction between individual students can not only promote students to learn from and help each other, but also strengthen their emotional and ideological exchanges, helping to create an openness.

3. CONCLUSIONS

Gamified teaching based on traditional games, gamified teaching based on virtual games, gamified teaching of theoretical courses and gamified teaching using incentive mechanisms may be effective in improving students' academic achievement, but the conclusion is uncertain. Using HTML5 and JSP technology to achieve artificial the intelligent course algorithm visualization assists the design of the teaching platform, and the abstract algorithms of artificial intelligence are stitched frame by frame through pictures. This course uses a network-assisted teaching platform, adopts a teaching mode that combines online and offline, and uses the intuitiveness of mind maps to effectively improve the problems existing in the course.

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