



System Design of English Curriculum Based on Virtual Technology

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Abstract. Because changing the teaching methods can improve students' practical operation skills, so in the process of curriculum teaching mode system design, especially the English course using virtual technology, can integrate learning and leisure activities, improve the quality of teaching. The development of English teaching system based on virtual technology for the monotonous and boring teaching of English teaching. Based on this, this paper aims to encourage teachers to use interactive and graphical methods, to use similar game examples, to teach students vocabulary, to study sentences, game teaching, and to promote students' understanding of the English classroom.

Keywords: virtual technology · English courses · teaching mode · system design

1 Introduction

Virtual reality technology can create a good virtual learning environment, and students can interact with objects in natural ways, such as grasping, pulling, and pulling methods. Use the interactive way, explore the world, establish their own understanding, let the students from the master to knowledge. By learning skills, getting more feedback is easier to generate motivation. By using the virtual reality interface, students can do their homework very well without being affected by the computer interface, creating a more concentrated learning content; with an obvious advantage over the general educational medium. The development of virtual reality technology has changed the traditional teaching methods and the way that students learn. Mainly look at it from the following points. (1) Preparation before class: students are required to preview before class. (2) Case teaching method: refers to the use of group analysis and creative thinking to stimulate students' interest, interpretation and imagination. (3) Self-amendment: The goal is to make students who cannot participate in individual or group teaching activities have free training (such as mind mapping, visual speech, etc., which can improve students' learning ability). (4) Online learning tools: There are many free ways of learning online that teachers can stimulate students to participate, participate and enjoy in the classroom. (5) Play: introduce games, let the students learn better.

2 Virtual Teaching Overview

Virtual teaching (Virtual Instruction or Virtual Teaching) is virtual reality technology, namely computer simulation teaching. Using virtual reality technology, we simulate virtual reality in virtual reality and interact with teachers and students in a “simulated environment”. Virtual teaching is a major content of modern distance education. Compared with face-to-face teaching, compared with different teaching materials, such as printing, radio and television, audio recording and video recording, one-way design, production and transmission and non-real-time distance education based on teaching materials are adopted. The system can provide students with a large number of realistic situations and rich teaching resources, and create the space for various interaction.

Virtual reality is an emerging technology that integrates computer technology and traditional audio and visual technology. The technology can create an artificial, computer-based 3 D virtual world through a computer, or input other real scenes into the computer, thus creating a real “virtual environment”, thus giving users a sense of being in the real world. This system not only opens up new ways for English classroom teaching, but also creates a favorable environment for teachers to be effectively explore in the classroom. Enter a more realistic light and sound and light with the attitude of the protagonist, allowing the students to play a part of themselves in a virtual learning situation, and fully immerse themselves in it. Through practice, students can learn different methods in a multi-dimensional information environment to maximize their enthusiasm [1]. So that they can truly and happily learn to get rid of the boring English teaching.

3 The Significance of Virtual Reality Technology in English Course Teaching

Virtual reality technology is an immersive and interactive teaching method, which can allow students to personally experience the knowledge contained, arouse their curiosity, stimulate students ‘learning enthusiasm, and effectively promote students’ learning. In the virtual situation, students interact with students, and add a set of humanized virtual space based on life, making the combination of reality and abstraction more closely. Using virtual reality technology, students can be completely immersed in the game to achieve an “immersive” effect.

In English teaching, teachers can set some steps to enable students to communicate with practical situations in class, such as job interview. Dining in restaurants, pick up at international airport, and so on [2]. In addition, we can also provide students with three-dimensional scenes through the computer, such as animation, audio, video, etc., so that students can learn English knowledge and skills in such an environment. Through this situational communication, students can experience the English language expression ability in the actual environment. For example, in an interview, the employee (i.e., the student) shakes hands with the boss (the 3D virtual character) in the reception room, and the employer talks with him in the language he has learned. By using virtual language, students can get rid of the traditional teaching mode of relying on teaching materials.

4 System Design of English Course Teaching Mode Based on Virtual Technology

Teaching software is to help students complete learning concepts through teaching principles in teaching practice. This paper expounds a new computer technology curriculum-educational game teaching and analyzes its characteristics. Ji Hong strong [4]. This paper introduces the application of GTI in computer department and GTI in teaching object-oriented process; this module can be used to support a teaching of teaching units. Li Kefeng [5]. Using flipped teaching technology, games and other means to concentrate the teaching, under the page-turning teaching, students learn from the existing videos; learning reports, homework, students in class interactive activities, practice, discussion, etc.

On the other hand, the so-called gamification is a “modular” education based on “games”, based on “playing”, namely integrating “modular” “games” into “English courses”, that is, “allowing students to play” and teachers can “adjust” naturally and effectively. The module takes the user-service mode as the core, and is divided into three levels: database, interface, database management, etc. In these modules, the database is mainly responsible for the storage and management of the data, while the main role of the server is to process and display the user’s input of the data. All created new courses at the database level and retained the original curriculum. The management department is responsible for the management of user accounts and other relevant information. The interface layer is between the repository and the database [3]. Can reduce the retrieval and storage of data. At the data level, it is necessary to input data into the database from the database. Use the repository administrator to add new games to the system.

4.1 Introduction to the Vizard Framework

Vizard is an integrated development environment based on Python, and it is also a development platform for virtual reality systems, providing tools for scene, object modeling, and drawing, including different material documents. 3 DMAX can build 3D models and then introduce 3D modeling into the Vizard environment using built-in bootstrap programs. This method can model and draw the objects of arbitrary shape and size, and you can put the models and images imported by Vizard on the appropriate scale. The user’s input can also be edited to produce interactive graphics, sound, or other forms. By calling the Vizard library to provide a built-in feature for the controls and surroundings, users can create one or more targets according to their preferences. You can also add the above shapes, text, buttons, sliders, etc. Users can use this program to perform a variety of tasks, such as identifying different types of objects, and obtaining relevant information from different sensors. The Vizard includes the Python script editing and debugging programs. On this basis, the debugger can automatically generate the corresponding script and save the user’s instructions into the database. When this instruction code is established, it can be used for detected or undetected errors, or it can also be used as an executable file (. The exe) to the scholar concerned.

4.2 VRI System Deployment Design

This paper developed a set of English teaching platform using Vizard Visual Python software. It is characterized by a friendly interface and a strong interaction ability. See the System Configuration chart 1 in the Fig. 1.

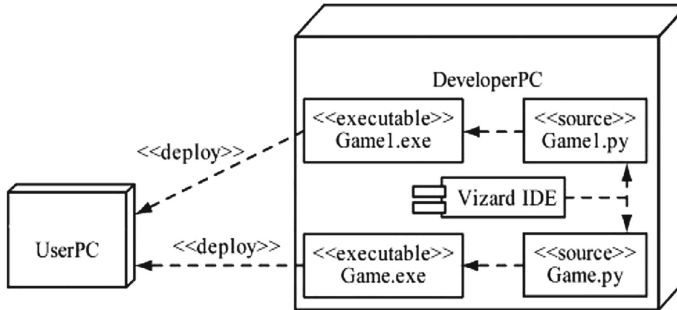


Fig. 1. .

In terms of development, the DeveloperPC in the chart, the Vizard IDE for Game1.py and Game. The source requirements library of py. Developers define and maintain the call libraries themselves without having to write code for this programming language. After making a library call, each Python file is distributed to the Game as a Game1.exe. In addition, it can also be customized in terms of custom menus and custom dialog boxes. After running, UserPC can use the Vizard without pre-installation.

4.3 Logic Design of the VRI System

Using English teaching, based on games, students to explain the various functions of the VRI, and the choice of each option. The implementation process for the special functional module is shown in Fig. 2.

- 1) Insert—When the user presses a key, a key is set in a specific position. After pressing the button, the user automatically determines that the position is in one or more windows based on the area selected by the user. If the user clicks the correct button, the button in the area appear green, or black and white. Otherwise, it will be a green area. When typing a number or a word, if the key is selected, it appears in a white form. Without the correct click, the key appears in red.
- 2) Delete—In Insert mode, the user can see a specific location, and you need to click. When the user types at a specific location, the icon and text corresponding to the location are displayed on the screen. If the user presses it in place, the button will be removed; if pressed in an incorrect place, a new window appears before you. Otherwise, it will turn to red. During system initialization, you can set this button to a new key, but it cannot be used for other operations. The overall architecture of the system is shown in Fig. 3.

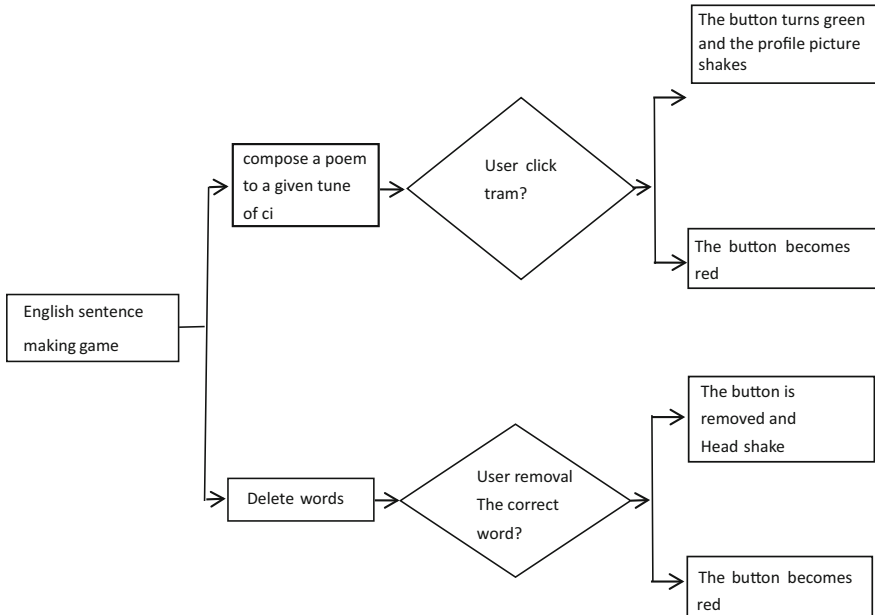


Fig. 2. .

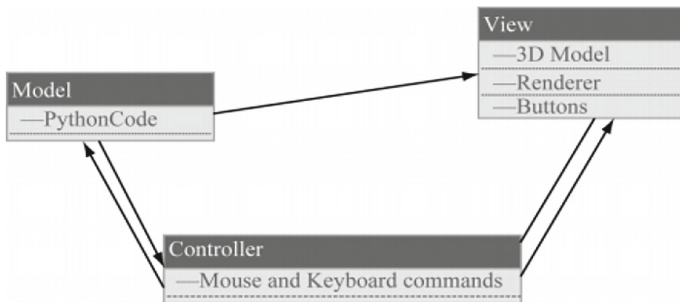


Fig. 3. .

This system is based on the MVC (view, model, controller). Models are about data and views are the way of show the data to the user. A controller refers to how the user operates and views the data. In these data, it is implemented through the various modules of the Python program. In each program, the view is placed in a 3D model, and the renderer generates each scene and the button, allowing the user to interact with the individual modules. Each module has its own characteristics, and based on this basis for functional control.

4.4 Experimental Teaching

About one-third of the students believed that the teaching units would have a great impact on the students' conceptual understanding. Although some studies have pointed out that different teaching methods can affect students' understanding of specific knowledge, there are no unified answers to these questions. About 60% of the respondents thought that they were satisfied with their understanding of the concept. This activity is a good way to do subjects you dislike or dislike. Students felt that these units were more beneficial to students in understanding specific topics than extensive learning in the classroom.

Regarding the specific areas that students perceived in the teaching unit, these areas positively influenced their conceptual understanding. In a virtual classroom, students can help to learn the content of this course better by displaying and learning a specific teaching content. Most students believe that the teaching model of virtual reality can promote the conceptual understanding of their core knowledge areas. In the teaching module, more students had a positive conceptual impact on the understanding of "Insert" compared with "Delete" (81.38%) (91.8%).

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