The design method of primary school English learning system based on intelligent push

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Abstract. In the reform and development of modern education, electronic learning system with computer technology as the core has been popularized and applied, which not only reflects the unique advantages of modern information technology, but also fully mobilizes students' interest in learning, improves the traditional education guidance model, and enhances the effect of primary school English learning. Especially in the context of the new curriculum reform, the traditional monotonous primary school English learning mode has been unable to meet the needs of students, and it is difficult to cultivate professional English talents needed in the new era, so it is necessary to combine artificial intelligence to build a primary school English learning system. On the basis of understanding the research status of primary school English learning system, this paper mainly explores the architecture of primary school English learning system with intelligent push as the core, and designs and implements learning resource push application by taking Android mobile phone as an example. The final result proves that the primary school English learning system based on intelligent push is more in line with the needs of education reform.

Keywords: Primary school English; Learning system; Intelligent push; Functional design; Learning resources.

1. Introducion

In the continuous change of education in our country, a variety of e-learning systems began to be widely used, and the education field paid more attention to give play to the unique advantages of information technology and network technology, fully mobilize students' enthusiasm for learning, and improve the effect of classroom education guidance. However, from the perspective of overall development, there are still many problems in the existing primary school English learning system. Traditional irrigation education still exists, and students' individuation has not been fully developed, which directly affects the efficiency of primary school English learning. Nowadays, the United States, the European Union and other western developed countries have developed a variety of modern learning systems, effective and rich primary school English education guidance model and classroom learning content, such as Pearson Education, Mintel and other English learning systems not only provide rich content for primary school students to learn English knowledge, It can also set up appropriate learning methods according to the individual needs of different students. The system mainly includes a number of functions such as calling by famous teachers, sentence translation, word query, content analysis, etc., which can achieve the expected results whether it is classroom teaching or after-class training. With the continuous development of social economy and science and technology, the primary school English learning system will certainly become the most important learning tool for students, which is convenient for students to quickly find the necessary

materials in independent learning, solve the problems faced by traditional classroom teaching, and truly achieve the educational effect of twice the result with half the effort.[1-3]

Nowadays, China's education field pays more attention to the development and design of primary school English learning system, and will think about system architecture and functional modules according to industry policies and students' needs, which not only provides a variety of models for primary school English learning, but also brings good learning experience to primary school students. Among them, the most representative is the intelligent push function. For example, e-book push is the core content of primary school English learning system, which mainly uses dynamic form to present learning materials to students, which not only reflects the dynamic nature of modern e-learning system, but also mobilizes the autonomy of learning and inquiry of primary school students. Under normal circumstances, the primary school English learning system will effectively combine JSP technology developed by JAVAEE platform with JQuery, and use the open source of JQuery to provide dynamic and real e-learning materials to students, so as to create a good learning experience for them. Personalized data push function mainly includes resource sharing, data analysis and other services. This module can intelligently analyze students' usage, learning habits and other information, and then provide them with more suitable learning materials. It can gradually get rid of the traditional teaching problem of accepting the same knowledge and learning methods, and at the same time, it can use the evaluation function to intelligently analyze students' learning level. Truly realize the individualized learning inquiry of primary school students. As the primary school English learning system is more in line with the learning needs of primary school students in the new era, and solves the problems existing in the traditional education mode to a certain extent, it has a broad application space in the rapid development of science and technology in the future. Therefore, this paper mainly studies the design method of primary school English learning system based on intelligent push.[4-6]

2. Method

2.1 System architecture

Primary school English learning system design to choose B / S architecture design operation, system internal learning resources to use metadata description processing, and strictly conform to the national information technology standardization technical committee requirements, only in this way can truly reflect the extension of metadata description and flexibility, English learning to provide technical support. The display layer should use the e-book format to provide personalized learning materials, so that students can intuitively access and watch orderly in practical operation. The overall system design is mainly divided into three aspects: first, the data layer. This level of design is mainly used to store the physical data in the system, such as learning resource database, system user suffering, learner information database, etc. Configure the relevant data layer services and process the services at the business layer, and then transfer the business results to the business layer or service layer; second, the business layer. This level design is mainly used to receive user requests from the performance layer, logically process the data of the data layer, and provide an effective basis for the resource recommendation of the primary school English learning system. Use data to access the data layer from providing interface, mine valuable content in large quantities of data information, and fuse processing; finally, the performance layer. This hierarchical design refers to the interface between the system and the user, which is mainly responsible for collecting and

tracking the behavioral data of the system users, and can provide different interfaces for different user roles.[8-9]

2.2 Information database

The construction and management of learning resources is the core link of the primary school English learning system, and the relevant organizational model is the guiding framework of the overall organization and operation. By creating a good learner model for primary school students and mastering more information about learning experience and learning preferences according to the data information of system users, we can not only get a personalized learning system, but also provide effective data for modern education reform. With appropriate kinds of information, the information description is obtained as follows:

First, preference information. The file form of learning resources is regarded as a mechanism of preference, which is added to the preference information category, mainly including text, pictures, video, application and other content; second, academic information. By adding extended meta-information of learning level within the system, the achievement information related to learning resources can be effectively recorded, which is mainly used to help the system judge the learning level and learning motivation; third, personal information. By adding extended meta-information of role classification within the system, different functional interfaces can be provided according to the requirements of different roles, specifically divided into educational administrators, teachers, field experts, students and other groups; fourth, extended meta-information. This content can not only query all the data recorded by the system, but also accurately calculate the students' personalized learning needs.

2.3 Repository

Combined with as shown in figure 1 system repository design structure analysis, as the key content of the system operation, according to the existing education standards, which must have the date, identification, description, keywords, discipline, author, language, and other core elements, can facilitate the topic function project classification retrieval or custom retrieval, at the same time pay attention to the learning resources, ensure that it meet the needs of pupils English learning[10-13]
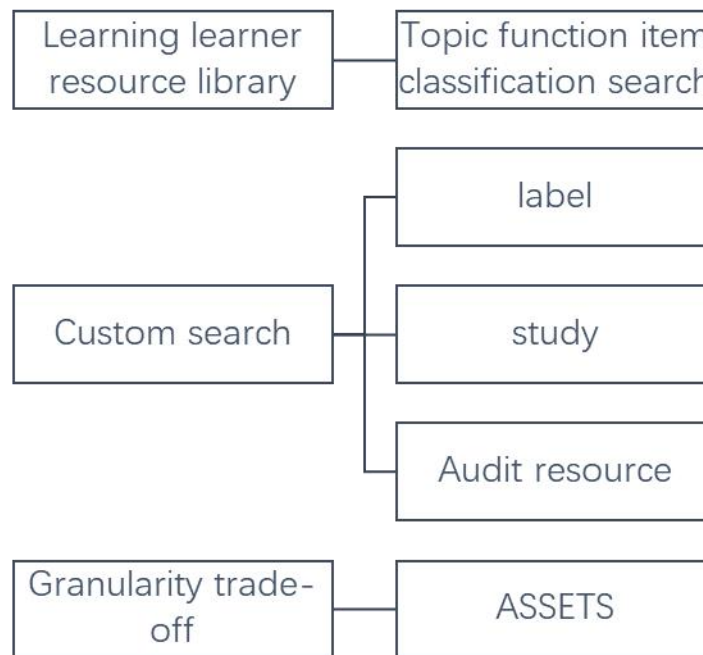
Figure 1 Structural diagram of the system repository

Compared with the traditional way of resource description, the learning resource description with knowledge points as the core will effectively link knowledge and learning resources together, regard the topic of language knowledge of resources as the metadata of learning resources, and truly store every piece of learning resource record. Generally, the process of resource warehousing is shown in Figure2below:
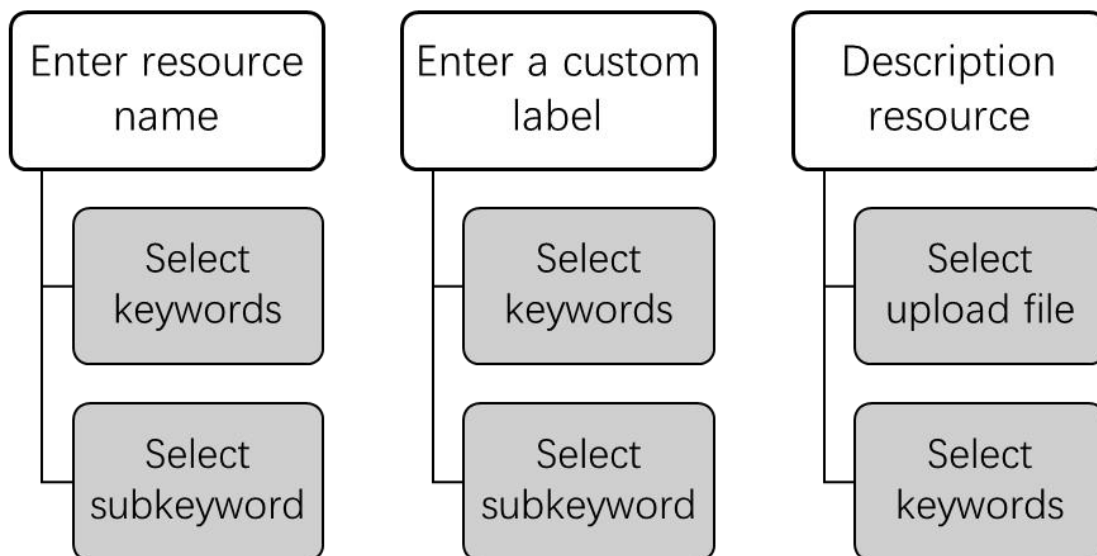

Figure 2 Flow chart of learning resources

According to the analysis of the figure above, it can be seen that the whole system should use JQuery-Ajax asynchronous upload technology and JSON data transmission mode to prevent the phenomenon of fake death while improving the efficiency of resource uploading on the system page. When the system uploads files, it is necessary to automatically identify the file type. The common

types include PPT, DOC, etc. It is necessary to convert the format at the server port, and finally generate the corresponding SWF file. Using the Flash Paper2 player to present the main content in the file, truly realize the online display of document data.[14-15]

2.4 Intelligent push

The English learning system with intelligent push as the core is more in line with the fundamental needs of classroom learning and independent learning in the new era. After extracting students' academic information, the system will accurately calculate their education types, and then push appropriate e-books or other learning materials according to their basic education grade level. On the one hand, during the classroom learning period, according to the textbook resources, add fixed extracurricular learning materials provided by the teacher and the system to deepen the students, on the other hand, to analyze the test results before and after class, and then accurately judge their learning level according to their interpersonal communication and learning trajectory, and finally use the learning preference algorithm to infer the students' learning interest.

3. Results analysis

Combined with the study of primary school, English learning system and intelligent push function, reasonable application to a regional primary school English teaching classroom, the management of learning materials push process as shown in figure 3, which has new resources and resources to delete the two functions, both are mainly used for scientific management system internal learning resources, as far as possible to simplify the overall system operation process, truly realize the functions of the server and push.
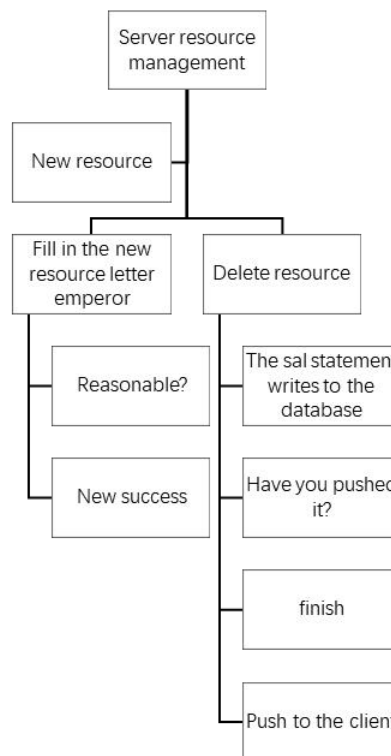
Figure 3 Flow chart of intelligent push of learning resources

In the current primary school English learning system design application intelligent push module, reasonable use of learning preference algorithm calculation, analysis of the students' learning level and interests, in view of the practice teaching needs, build a personalized English data recommendation model, not only can change the traditional monotonous teaching mode, also can continue to broaden the learning horizons of teachers and students. Apply the system function of this paper to a primary school classroom teaching, the final result proves that based on intelligent push primary school English learning system can meet the needs of most students, and students and their parents of learning materials personalized recommendation satisfaction reached more than 90%, can effectively reduce the resource selection and information search time, improve the students' learning efficiency. Therefore, in the future, Chinese scientific research scholars should continue to explore the primary school English learning system, and pay attention to reflecting the application value of intelligent push.

Conclusion

To sum up, although the design function of primary school English system based on intelligent push works well, there are still some problems from the perspective of practical education management, such as the user operation interface is not flexible enough, the user permission design is not standardized, and the system function needs to be improved. Therefore, in the rapid development of social economy and science and technology, our country education field to continue to explore primary school English learning system architecture and function module, reasonable use of network technology and electronic technology to provide students with personalized and diversified learning mode, pay attention to provide resource sharing, personality push, learning inquiry, classroom evaluation, gradually solve the problems facing the traditional primary school English teaching, provide effective basis for primary school English education reform in the new period.

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