Research on Network Technology and Its Application in English Major Teaching

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Abstract: Online teaching plays a very important role in the teaching of English majors. The theory of cognitive flexibility provides a theoretical basis for online English teaching from the perspective of educational psychology. Through web-based hypertext and multimedia teaching, students can gain access to knowledge from multiple perspectives. This paper focuses on the implementation methods and significance of multimedia network design in English major teaching. It points out that the richness and pertinence of website content is an important principle of the website, which can be through Web server, FTP server, streaming media server and remote terminal server. Different ways to achieve effective network teaching, and emphasize the importance and necessity of building technology for teachers are studied.

1. Introduction

The 21st century ushered in the Internet age. The Internet has entered our daily lives, and more and more people watch news, check information, listen to music, and shop online. The network has also entered the campus, providing great convenience for teachers' teaching and research. As a new teaching mode, online teaching is in the ascendant. In 2001, the English Major Series Online Course (9 courses) hosted by the Modern Distance Education English Network Education Collaboration Group of the Higher Education School was funded as the second batch of project of the “New Century Network Course Construction Project” of the Ministry of Education. At the same time, local governments also invested in human resources and funds to develop web-based courseware and related educational software. For example, in Jiangsu Province, a number of provincial-level online courses were selected in 2000, which were open to universities across the province. Many college teachers actively explore ways and means of using computer network technology to implement English teaching in a network environment and have achieved good teaching results [1].

The application of online teaching methods has important practical significance for English education in China. It can make up for the shortcomings in English teachers, language learning environment and teaching resources, and complement and promote each other with traditional teaching methods. Chinese English education has long been plagued by tensions in teachers. As far as college English is concerned, public English classes are basic teaching, and schools often do not pay much attention to them. They are generally treated and difficult to attract outstanding talents. In the traditional teaching mode, English is taught in small classes and requires a lot of staff. The development of network technology provides an opportunity for the reform of public English teaching in universities. For the English reading, vocabulary, grammar, listening and other teaching content that requires a lot of repetitive drills, develop the corresponding web-based courseware, give full play to the advantages of human-computer interaction of new technology, and let the interactive feedback of the computer replace the teacher's repetition. Labor, let students follow the computer to learn, and stimulate their enthusiasm for learning. The introduction of network technology into English teaching will promote the transformation of teaching mode from teacher classroom infusion to student self-learning [2]. Through the development of courseware, teachers have changed from simple teaching to teaching and research. Online teaching is expected to become a breakthrough point in the reform of public English teaching in universities.

As far as the teaching of English majors is concerned, network technology has also shown broad application prospects. As a foreign language, English lacks a language learning environment in China. The learning time in the classroom is limited, and the language practice in the classroom is
mostly carried out in a hypothetical situation. Students often learn the language for the language; while outside the classroom, the students basically do not have the opportunity and environment to communicate in English. Network technology can play a role in creating a language learning environment for English learners. Although the communication on the network is carried out in a virtual electronic space, it is a kind of real communication. The language communication space created by the network can provide learners with a real communication environment both inside and outside the classroom, so that learners have the opportunity to apply their knowledge of the language they have acquired, so that their language knowledge and skills can be consolidated in use. And improve. For example, in the network environment, English writing teaching is conducted, so that students can write in English in the discussion area. Students can learn and master the language through communication and practical use, so that the cultivation of language communication ability can be implemented [3].

2. The Theoretical Basis of Multimedia Network Teaching

The educational psychology community is constantly exploring the role and influence of multimedia network tools on learner subjects, and attempts to establish a theoretical model of Internet-based teaching methods. Cognitive Flexibility Theory is an important branch of educational psychology constructivism and was proposed by Spiro et al. They inherited the constructivism of constructivism in cognitive processes and proposed a “interlaced” learning process, arguing that learners construct multi-angles of knowledge and propose “synchronized access to advanced learning”. The teaching process should be conducted at different times, scenarios, and in different ways to “reveal the multiple associations of knowledge and the dependence on the situation”. For English language learners, the areas of knowledge involved are between Spiro's proposed structural systems, closely related well-structured domains, and ill-structured do-mains. In favor of the latter, the learning object is mainly oriented to a wide range of concepts and large differences of examples, so it should also be able to highlight the students' random accessibility in teaching. Based on this theory, multimedia network teaching can use different types of data, such as text, images, audio, video, etc., to achieve a multi-dimensional "criss-crossed landscape" of learners' knowledge points in hypertext learning. Browsing, combined with a non-linear hypertext organization structure, engages a large number of language immersion learners. This kind of knowledge organization network with no fixed order but fine arrangement can provide learners with a good hypertext multimedia learning environment, so that they can access the information of each knowledge point and finally learn through cross-integration. Obtain. The network link can realize the closed structure, so that the learner can learn according to the complete webpage and directory order, and can also design a completely open multi-link structure, so that the learner can arbitrarily turn between the webpages, select between different directories and contents, and realize in different ways. Arbitrarily accessing a certain knowledge point, thus achieving the arbitrariness and timeliness of the cognitive process, fully reflecting the flexibility of cognition [4].

The main advantage of multimedia network English teaching is that it transforms the teaching mode of teacher-centered, classroom-based, book-based, and collective-oriented teaching in traditional teaching, realizing student-centered and extracurricular learning as an important form. Self-learning based on multiple forms of materials and individual-oriented learning. Students decide their own learning style and content. These characteristics are also consistent with the student-centered learning model advocated by constructivism, but they do not neglect the guidance of teachers. Role. In addition, the advantages of multimedia network English teaching are its interactivity, situationality, systemicity, freedom and fun. The web interface can realize human-computer interaction and teaching interaction, breaking the conventional one-to-one basic solution, which can realize one-to-many and many-to-many; through streaming media and audio-video teaching, it can provide small cases. To enable learners to recognize the wide-ranging connections between cases from different perspectives, and to obtain multi-dimensional cognition based on scenarios and case-based; in systemic aspects, the design of teaching websites should be heard, spoken, read, written, etc. from English. Starting from all aspects, it achieves greater freedom
than classroom teaching, and is not limited to the form of “one book, one course” in traditional teaching, and is transformed from teacher evaluation to teacher evaluation and student self-assessment. Students' autonomy of learning, this autonomy ultimately "not only the improvement of language communication ability, but also the expansion of thinking mode, the reorganization of values and the reshaping of personality structure."

The design principle of the multimedia teaching website The construction of the teaching website should consider the nature and content of the website. According to the needs of English majors, the objectives should be clearly defined, taking into account the level and interactivity. In general, the following principles should be followed:

Content is dominant. The construction of the website should reflect the teaching content, emphasizing the importance of all aspects of English skills, avoiding the public as the object and the examination-oriented. Teaching plans, exercises and tests, entertainment, special content (such as dictation, grammar, vocabulary, reading, writing), cultural and social content (such as news, literature, history, music, etc.) can be set. This can provide enough content for English learners to choose and stimulate learning autonomy; but to focus on the key, can not be information complex, organizational confusion.

The object is mainly. The website should be student-centered, taking into account the learning habits and needs of the subject, highlighting the level, readability, intuitiveness and interactivity. For example, online dictionary queries, encyclopedia links, and media control buttons can be designed to allow learners to control the presentation of web pages more freely. It should also have the concentration of resources, and provide content filtered by teachers to make web browsing more effective. In terms of interactivity, design online submission of workflows, forums, and emails.

Easy to maintain. The network platform should be highly portable and easy to maintain. You should consider browser compatibility issues, web page language versions and standards, browser plugin technology, and more. More importantly, the content of the website will become more and more abundant over time, so easy maintenance will be a crucial issue. If the design of the website is confusing, it will inevitably cause difficulties in network update. Effective practices for achieving ease of maintenance are modularity, embedding, and minimal repetition. The content of each webpage should be relatively independent, and should not be mutually restrained to avoid maintenance difficulties. For example, you can keep frequently updated content embedded in the web page through the <iframe > statement to keep the web page frame unchanged, so that the website maintenance can be more efficient.

3. The Construction of English Language and Literature Material Library

For a long time, English teaching in China has been plagued by lack of teaching materials. Foreign original textbooks are expensive, far beyond the ability of teachers and students, and ordering is also very inconvenient. The teaching of many schools is satisfied with a textbook, and the relevant teaching reference materials, foreign papers are outdated, or basically not. The widespread use of the Internet in the country provides a way to solve this problem. The English resources on the Internet can be said to be inexhaustible and inexhaustible. Teachers can download language materials from the Internet and use them directly for teaching. Students can also search and browse online, expand their knowledge, deepen their understanding of learning content, and even use network resources to conduct preliminary research on a topic. the study. In this way, the student's reading is no longer limited to the text of a textbook, but a language material that is close to real life and live. However, despite the abundance of online resources, it is often time-consuming and laborious to search for language materials that are suitable for English majors and are highly targeted. Needless to say, there is still a lot of junk on the Internet. In order to enable teachers and students to find the most useful teaching resources in the shortest time, the Department of English of Nanjing University was commissioned by the Ministry of Education to build a network-based English language and literature library [5].

The construction of the English language and literature material library is based on the compulsory and elective courses specified in the English Syllabus for English Majors in Colleges
and Universities (2000). The collection, collation, coding and storage of the teaching materials of each course are completed in stages and in batches. It has the following main features:

First, we can provide users with rich and varied materials. The English language and literature material library is divided into four sub-libraries including English language skill sub-library, English literature sub-library, English linguistics and applied linguistics sub-library, and cultural sub-library, covering reading, audio-visual, listening, speaking, writing and translation, novels, drama, poetry, prose, literary criticism, introduction to English linguistics, English vocabulary, English grammar, English teaching, language learning theory, Anglo-American history, English and American society and culture, Chinese and Western cultural thoughts, etc. From the perspective of the type of material, the material library is mainly composed of text type materials, and also contains a considerable amount of pictures, audio, and video types. From the source of the material, not only the textbooks and teaching reference materials published at home and abroad are available. And make full use of the existing shared electronic resources on the Internet. The English language and literature material library is based on the teaching content stipulated in the current "Outline", and appropriately expands the number of related materials for teachers to prepare for classes and students to choose when using extracurricular learning.

Second, the user can quickly retrieve and use the material. Material search can be easily searched according to the title, author, and keyword of the material. At the same time, the scope of the search can be narrowed by limiting the use of the material, the applicable course, or by limiting the type of the material, thereby speeding up the retrieval speed and accuracy. The material is presented in the form of a web page, and the user only needs to have a normal IE browser. Users can browse or download online, some text materials (such as the full text of the novel) and large amount of materials are also available in the form of compressed files for users to download and use.

Third, to provide users with useful materials. Teachers who participate in the construction of the English language and literature material library have long been engaged in English teaching. They start from the practical needs of teaching and search for useful language materials in the vast amount of materials for screening and editing. In the production process, after the material is marked, the resource is verified to the final storage, and the layers are checked to ensure that the material library becomes an effective resource for teacher preparation, student learning, online course construction and construction of various course materials in English teaching.

Fourth, the ability to have sustainable development. The English language and literature material library mainly focuses on the undergraduate course materials of English majors, taking into account the teaching needs of English majors and college English courses. In the database design, the sustainable development of the material library is integrated into the overall framework and is available in future conditions. In other cases, further collection of other materials, continuous enrichment of educational information and multimedia resources, so that it can be backward compatible, provide materials suitable for ordinary English learners, can also be upward compatible, provide materials suitable for English postgraduate courses. According to the requirements of the Ministry of Education, the educational resource library is responsible for collecting various resource information, resource search, resource information screening, resource information sorting and storage. After the completion of the English language and literature material library, it is expected to provide open services for members of the whole society, especially teachers and students. Teachers and students in remote areas can easily download documents from the English Language and Literature Library through the China Education and Research Network if they want to read English original novels or related review articles. As an integral part of the foundation of the online course, the educational resource library will play an important supporting role.

4. Conclusion

The 21st century is the century of the Internet. Network technology will make profound changes in the field of English education and promote the modernization of education. With the development of information technology, online teaching under the support of modern information technology will become an effective teaching mode in English education and is generally accepted.
Network technology has broad application prospects in the field of English major teaching, and has provided and will continue to provide advanced support conditions for English major teaching.

References


