



# Design and Implementation of College English Teaching Quality Evaluation System

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**Abstract.** College English teaching (CET) is a public required course in institution of higher learning. Learning English teaching quality evaluation system is a system for college English teaching quality evaluation and college English comprehensive analysis, which can realize the comprehensive judgment of English knowledge, English grammar and many contents. Fuzzy neural network can provide knowledge for the design and analysis of college English teaching evaluation system. The research results show that neural network has a good effect on the overall optimization of the evaluation system, which meets the actual requirements. Therefore, if mobile phone network can improve the effect of college English teaching evaluation.

**Keywords:** FNN · CET · Evaluation of quality · System design and experiment

## 1 Introduction

With the analysis and research of college English, the process of college English research and the overall effect of college English education evaluation, the comprehensive vague existence has strong advantages, which can analyze the relationship between English knowledge more deeply, coordinate the problems between English and reveal the content of English better. Teaching methods mainly focus on teachers' intensive lectures and practice, grammar and-translation, lacking the teaching of learning methods and strategies and the application of computer multimedia, which deprives students of their right to participate and interact in teaching activities [1]. The lack of students' knowledge of English culture, the backwardness and singleness of teaching methods and means, and the lack of opportunities to apply English in teaching activities lead to the phenomena that students can't understand, speak or translate correctly in real communication. In the environment of informationization and technology, Strengthening and analyzing the quality and effectiveness of English teaching can improve the overall education level of college English, optimize the structure of college English education, achieve overall judgment and comprehensive analysis of English, and provide support for other English research such as listening to music, reading and writing [2]. However, the theoretical system of neural network research is not perfect, and there are some problems in its application [3].

## 2 FNN System

### 2.1 System Structure

Not only neural network is a kind of fuzzy group proposed on the basis of analytic hierarchy process at present, the network collects through model groups, and then carries out fuzzy analysis on the related attributes of data, eliminates the abnormal data, and ensures the overall stability of data. Therefore, then the analysis method can optimize the structure of data, the optimized form of data and the content of data, and simplify the whole analysis process. In the process of fuzzy analysis, it can sort out and analyze data, judge the union of system data and the comprehensiveness of data by 12 weighted ways, and realize data analysis and data mining more deeply. Among them, data initialization and data initial point analysis play a very important role.

$$x = (x_1, \dots, x_i, \dots, x_n)^T \tag{1}$$

Second tier status:

$$f^k = \frac{F^K}{\sum_{k=1}^m F^k}, (K = 1.2 \dots M) \tag{2}$$

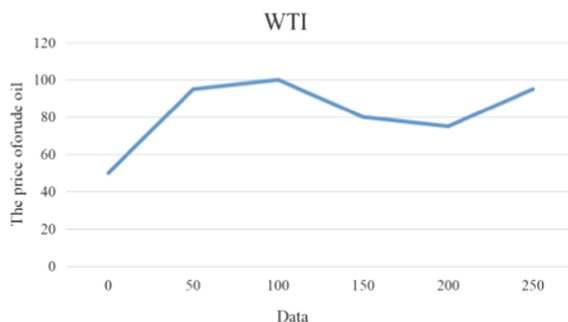
Level 3 status:

$$y_i = \sum_{k=1}^M f^k \omega^k, (j = 1, 2, \dots, m) \tag{3}$$

In the process of rapid development and change of society, the integrity and comprehensiveness of data should be deeply analyzed to study the overall relationship of data and the analysis process of data, so as to better realize the overall mining of data. As a communication tool, English has received unprecedented attention, and the socialization of college students has a long history. With the rapid development of China’s socialist market economy, the entry of WTO and English learning system can improve the quality of English teaching and complete the overall evaluation and analysis of teaching [5]. As a result of these factors, the socialization of college students has become more and more prominent. Today’s society is a society of knowledge economy, which promotes the socialization of college students. College students on campus will undoubtedly be influenced by all aspects of society. The major development and changes in society, politics, economy and other aspects, as well as the great changes in social life, have objectively exerted great influence on the socialization of college students, including their ideology, self-awareness, psychological state and behavior, and their attitude towards learning, especially English learning, has also been greatly influenced [6].

### 2.2 Application of FNN in WTI Crude Oil Price Forecast

Wlan can also be used as a key indicator in English learning, which can reflect the quality of English learning and English teaching. The key is to better realize the content,



**Fig. 1.** Data noiseless sequence diagram

improve English data, English results and comprehensive content, and explore the key in English, listening, speaking, reading and writing (Fig. 1).

Fuzzy logic system has the advantages of simple system, direct algorithm and small amount of data processing, but it has poor flexibility and no self-learning ability. The neural network can make the system have self-learning ability and a high degree of parallelism by adjusting the weights of nodes, but the system is difficult to understand, the amount of processing information [7]. It can be seen that the two have good complementary advantages. Based on fuzzy logic system and neural network, this paper explores FNN system, makes full use of their advantages, overcomes the shortcomings of single system, and then adopts BP algorithm to adjust the parameters and weights of the system [8].

### 3 An Introduction to the Functions of College English Learning Platform

#### 3.1 Multimedia Instruction

Multimedia technology refers to the physical materials that store information, such as newspapers, flash memory, tapes, etc. [9]. Among the multi-media composed of many single media, the combination of sound and image forms the computer video technology. Media, like contemporary technology, consists of two parts, both of which are the hardware and software, as well as the combination of machines and ideas. Multimedia technology can be divided into two different concepts: monitoring system and information. According to the current classification, multimedia includes: sensation, transmission, storage, display and representation of these types of media. Generally speaking, sensory media means sensory information that we can feel directly, such as hearing and vision. Media-like means the way information exists, such as patterns and videos. Display-like media means the facilities that embody and obtain information, such as magnetic disks and optical disks [3]. Transmission media means facilities that transmit data, such as optical cables and cables. This type of media is closely related in the multimedia space, but generally speaking, if not particularly emphasized, the media we are talking about means multimedia. With the help of the development of computer technology, multimedia technology has changed from a special product in the laboratory

to a common tool in the information society, and now it has entered a higher level of development space. Multimedia technology makes use of the organic combination of sound, image, communication and other technologies of computer technology, and has been widely used in many industries in modern society [10]. The positive development of multimedia technology is bringing more and more influence to the society we live in, and bringing great changes to the mode of human production. The functions that the learning platform can realize are divided into front-end main functions and back-end main functions. The front-end main functions can be used by all users, including: user login, user registration, user password modification, display of newly published assignments, newly published discussion topics, latest learning and uploaded resources, friendship links, time display, viewing course syllabus, teaching progress, unit lesson plans, downloading and uploading resources, and commenting in Web CT discussion room (according to class and teachers) For “teacher” users, besides the above functions, they can also upload resources, upload and edit assignments and topics. The main functions realized in the background are administrator login verification (including user name and password), administrator management of teachers (including viewing, editing and deleting teachers’ basic information and adding teachers), administrator management of students (including viewing, editing and deleting students’ basic information and adding students), administrator management of classes (including viewing, editing and deleting classes’ basic information and adding classes), administrator management of messages (including viewing users’ comments) Registered users will only log in at the front desk after being approved by the administrator, while the messages posted by users will be displayed at the front desk first, and then the administrator will do the audit.

Through video and voice, we get the actual effect of English teaching, and analyze the actual data to eliminate the invalid data. 93% of the valid data are collected, which shows that the whole data is reasonable. The data collection method is mainly questionnaires, of which 53% are from men and 44% are from women. Moreover, the whole data investigation process has been reviewed and identified by experts, and corresponding feedback is put forward for modification. According to the validity and progress of the survey greater than 0.7, the survey of the whole data is in a reasonable state (Table 1).

**Table 1.** Gender of the students subjected

Gender	Man	Woman
Number of students	49	44
Percentage	53	47

In the process of analyzing the data, it is found that 46% are English-based, 43% are auxiliary system combinations, 54% are students and 32% are other scholars, so the distribution of English teaching is reasonable are shown in Table 2.

There are some problems in the whole English teaching process, so we should analyze the key indicators, especially the frequency and time of English learning, and identify the key points. We should also make a comparative analysis on English content and English identification methods (Table 3).

**Table 2.** Students' majors

Specialized subject	English major	Non-english major
Number of students	43	50
Percentage	46	54

**Table 3.** Use of auxiliary instructional resources combined with images, sounds and animations

Combined situation	Have	Sometimes	Often	Rarely	Never
Frequency	10	20	25	35	3
Percentage	11	22	27	37	3

### 3.2 Application and Existing Problems in Complex Systems Teach Content Based on Concept Map

Traditional control is model-based control, where the model includes control object and disturbance model. For traditional control, it is usually considered that the model is known or can be obtained through identification. However, the objects processed by FNN usually have serious uncertainties. The model uncertainty mentioned here contains two meanings: first, the model is unknown or little known; Second, the structure and parameters of the model may change in a wide range. In the traditional control theory, the linear system theory is relatively mature. Although there are some nonlinear control methods for highly nonlinear control objects, generally speaking, the nonlinear control theory is still immature and the methods are complicated, such as the common differential geometry method. FNN can often solve the control and identification problems of nonlinear systems. At present, college English courses in universities basically adopt a unified teaching philosophy and curriculum. It shows that teachers' education and teaching only the mastery of knowledge, ignore the innovation ability and personality development, only the process of curriculum teaching, and ignore the actual needs of the educated. Under normal circumstances, in the actual teaching process, in order to realize the teaching task, teachers often focus on the contents of textbooks in the teaching process. Most teachers start teaching according to textbooks and courseware, and read books directly in the classroom, resulting in teaching being like textbooks, classroom input, ignoring after-class output. Be ignored and become valued. You have to test many indicators, so you have to do red and white box test. At the same time, it is to ensure that the developed software has done what it should and has not done what it shouldn't. Generally, the testing of object-oriented software can be divided into the following stages from the process of software development: unit testing, integration testing, confirmation testing, system testing and acceptance testing. The scope of testing includes functional testing and performance testing, etc. In this paper, the scope of testing the network multimedia teaching system is mainly aimed at its functional testing, that is, testing whether the three modules realized by this system, that is, students' functions, are complete. This test plan document of network multimedia English teaching system is helpful to achieve

the following goals: to determine the software components to be tested and the required resources in the testing stage of a single system, and to select the testing strategies to be adopted accordingly, uses the Internet as a means to transmit media teaching content, and it is a network platform to carry out English synchronous courses, replay courses, and conduct related online tests and online answers. This multimedia teaching system includes four functional modules: user registration, teacher teaching, student learning and teaching management, among which the last three modules are the main ones. The teaching module includes network teaching, course assignment, online answering, online testing, teacher-student forum and personal tools. The learning module includes courses, homework, questions and answers, online tests, teacher-student forums and personal tools. Teaching management module includes account management, course management, notice and announcement, course feedback and other units. Besides the above units, this multimedia teaching system also includes public units, namely user login and authentication units. The ultimate goal of this system is to ensure the smooth implementation of various users' operation processes under their respective authority, so as to provide effective and convenient online assisted instruction.

## 4 Conclusion

The modeling and control of complex systems has always been a difficult problem in the control field. This paper analyzes the characteristics of a class of complex systems, and uses T-S model FNN network to model the system. A complex system is expressed as a fuzzy combination of multiple linear systems, which reduces the complexity of direct modeling (such as NAMAX) and simplifies the system analysis and controller design. Aiming at a class of nonlinear multivariable systems, a FNN adaptive controller for nonlinear MIMO systems is designed, which can compensate the unknown part of the system. By adjusting the FNN network parameters online, the closed-loop system realizes the tracking performance of the set trajectory. It is a challenging task to combine the fuzzy network with the traditional control strategy. This paper makes a useful attempt in this respect, and puts forward three design schemes of compound controllers, and gives their respective parameter regulation laws. These compound controllers broaden the application range of traditional controllers in complex systems and improve the system performance. As the research object of this paper is mainly aimed at autonomous learning of college English courses, the author envisages to develop an interactive learning platform for autonomous learning based on the existing technology. The fundamental purpose is to improve learners' learning interest and academic achievement, and explore a suitable learning method to improve their autonomous learning ability. Proceeding from this goal, the author has done a lot of literature research and interviews, and on this basis, combined with the existing technology, the author has designed a platform model of college English interactive learning.

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