The Implementation of an English Word Learning System Feedback System and Smartphone APP

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Considering the issue of Chinese college students that are not interested in learning English and have a lack of enthusiasm for learning overall, a feedback and motivation application based on cloud computing to teach English vocabulary to Chinese college students has been developed. The mobile application can collect and analyze the problems that users encounter in the process of learning English through the cloud server in real-time, and advise on how to resolve these problems. The feedback system also allows users to access this data. In the case of uploading to designated teachers, teachers can adjust their teaching methods and means through the cloud server in real-time to maximize the quality of teaching and achieve the purpose of monitoring teaching. The system uses a cloud service teaching assistant system;therefore the teaching feedback incentive system is not limited by space, time or place, and is also easy to use. During the development of the mobile application, the difficulty of keeping students interested in learning languages is taken into consideration. Attention must be paid to the learning of English words, assisting in the phonetic training system, and the use of animation in stimulating students' interest in learning. The program can effectively improve students' interest in learning, and the feedback obtained from this method of teaching can also help teachers and students in the future.

Keywords: Cloud Computing; English Teaching; Information Feedback System; Incentive System; Java

1. INTRODUCTION

From a global perspective, the number of people who speak English exceeds that of any other language. English is the mother tongue of dozens of countries, the official language of 45 countries is English, and two-thirds of the world's people use English to communicate. 75% of the world's television programs are in English, three quarters of the world's mail is written in English, computer keyboards are designed in English, and the common language of any international conference is also English. Many official and governmental activities, documents and communication methods also use English. The foreign trade industry regards English as the common language, foreign trade exchanges, international etiquette, letters and telecommunications, import and export documents, as well as bank documents, all use English as the standard common

language. The majority of universities and colleges in most countries offer English Language and Literature majors. In China alone, more than 100 universities have English majors or English-related majors. Computer technology and the Internet are also based on English. In addition, English is closely related to medicine, architecture and literature.

China has undergone tremendous changes in recent decades, and has developed rapidly in all aspects. However, there is no doubt that it is still lagging behind advanced Western countries in many aspects of technology. In order to develop, make progress and master all kinds of technology in a short time, advanced technology must be researched and learnt from developed countries. One of the necessary prerequisites for this learning is to master English, the world's common language for technology exchange. For example, when developing a computer program, although the computer operating system has a Chinese version, the program is still coded in English. Most of the high-level technical materials are written in English. While learning other

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nation's advanced technology and experience, there is also a need to carry out various technical and economic co-operations with other countries in the world.

Before studying English there is a need to determine the purpose of its use, whether it is a practical need or for literary creation. I believe that most people learn English because of their work needs, so English is just a tool for us to communicate with Western countries and learn advanced Western technology. In the past, English education in China was mainly focused on reading a large number of literary works; this practice had more disadvantages than advantages for those beginning to learn English. A stewardess, for example, needs only simple information, such as asking a guest what they need, or reporting the local weather. Reading literary works can be said to be of no help to her work. In order to effectively teach English, there should be an emphasis on the fact that English is a tool, and we should know clearly what we need this tool to do. The content and methods of learning should be tailored to the specific needs of the student. An air hostess does not need to start to learn English by understanding Shakespeare's works.

Many people seem to think that when they learn a foreign language, including English, that it can't be compared directly with their mother tongue. There is a need to show these people that language, whether Chinese or English, is just a tool for communication between people. As long as you can speak Chinese well, there is no reason to speak English badly. The reason why many people find it difficult to learn English well is only a matter of time and environment. Considering that since we were born, whether we study, work, play, eat or even sleep and dream, we have been using Chinese the whole time. The time we spend using English is miniscule in comparison. If we learn to use English as we learn and use Chinese, I believe that anyone with normal language ability can master English.

Scholars say that childhood is the best time to learn a language, after which it becomes more difficult. There is some truth in this statement, but it is not inevitable foregone conclusion. Many decades-old people can communicate fluently in English within a few years of emigrating overseas, because they have to use English for food, clothing, shelter and transportation. Other immigrants stay in Chinatown all their lives and only deal with Chinese people. Even if they have lived abroad for more than ten years, they may not be able to speak more than a few sentences of English. This shows that the key to learning English lies in its long-term application.

The English education system in China has so far put great emphasis on grammar learning. This has the result of many students having good grammar but being unable to speak English fluently. While talking, the student is so focused on grammar rules that they lose the flow of conversation. This emphasis on grammar learning in China has led many people to mistake grammar for language, when in fact, language has existed for a long time, and various usages are relatively fixed, so people summarize these rules into grammar. Many people in English-speaking countries don't use correct grammar, but they can still communicate well in English. Man has a natural language ability, which is a feeling, not a rule. This feeling is produced by long-term application. Only with this feeling can thoughts be expressed in English without solely focusing on grammar.

Now with the rapid development of the Internet, many things in life are made much easier, such as online shopping, online payments, online searches for the information, and learning English is no exception. English, as a universal language in the world, has been paid special attention; therefore, there are many online English training courses in the market. There are several advantages of learning English online:

1) Convenience

   Learning English can be done anywhere; students are not required to attend a classroom at a particular time. As long as students have access to the internet they are able to make use of their spare time to continue their lessons. This can improve students' ability to learn independently and help them learn English better.

2) Higher learning efficiency

   Apps can tailor the learning experience to the current level of the student. Once a student has mastered a lesson they can move on immediately to the next lesson without waiting for the rest of the class.

3) Time saving

   Online English learning enables students to communicate with teachers in English without leaving home, saving a lot of time.

The main problem of online education is getting students to continue with their lessons. As learning a language can be repetitive, it can be difficult to keep students interested. Another important drawback is that the cost of building an online education system can be quite high. Based on JAVA technology, this paper introduces a portable mobile phone App, which co-operates with a database and provides real-time feedback in English learning, with an emphasis on students' English vocabulary. Therefore, in this learning system, the content can be pushed in real-time according to the students' learning situation, and then students can find vocabulary suitable for their level of learning, which can greatly stimulate the students interest in learning English.

2.   TRADITIONAL ENGLISH TEACHING

Traditional English teaching is based on grammar, and rarely focuses on vocabulary, let alone information feedback. In traditional teaching, the memory of words is still learned through simple forms, letting learners memorize by rote, which causes a great psychological burden to learners. With the passage of time the learners' autonomy will gradually decrease, so the memory of these words will gradually fade away. Therefore, this paper develops a word memory mobile phone App based on information feedback. In this study, a mobile APP is used for vocabulary and interactive learning. Users can learn a wide range of new words based on their needs. Learning words through examples can effectively help users understand and use these words. Real-time feedback can strengthen the users understanding by providing new content tailored to the level of the user. Alternatively, if the content designer gives the required learning content for a class, then the implementor

tells the learner that you want the given vocabulary, so that the course can be better implemented. In addition, it should be analyzed according to the structure of vocabulary, in order to learn vocabulary effectively. If the vocabulary is classified according to the hierarchy, the users can re-classify and delete the learned vocabulary. The teaching plan of individual learning can also obtain more complete information in the most effective way. As English teachers, what we care about is how to guide students to learn. So the system we developed should be like a good language teacher. When students log on to the system, the courses and content they choose should be the same as those they communicate with their tutors in class, and the feedback information of students should be the same as the evaluation of their teachers, in order to stimulate students' interest in learning. Therefore, the established App learning system should play an important role in online education.

The proposed learning system is an online service. Users send requests to the server through the mobile APP. The server provides learning materials to the students through the network. The learning materials can be either local or network resources. The most important thing is that the resources on the server are free.

The vocabulary recitation system designed in this paper mainly covers the following categories: grading, life, film and television, and audio-visual. Examination categories mainly include CET-4 and CET-6, TOEFL, and IELTS.

3. EXPERIMENTS

The system block diagram designed in this paper is shown in Fig. 1 and Fig. 2, supplemented by the existing system.

The mobile App is coded in Java and the database is built using SQL. The database stores users' resources, usernames and passwords as well as the vocabulary system. When building the vocabulary system, we establish a word-to-word contact list and reasoning rules, which helps to store the resources effectively. Establishing a network between words helps users to better determine the order of learning.

The mobile App establishes the connection to the SQL database, checks the user's learning steps and whether to enter the next level test by looking up the table, it then further analyses how to improve the learning efficiency through the feedback system.

When the user completes a test, the words of that unit will be retrieved and the next test will be carried out. Before the next test, the system will randomly select five questions to test the user's learning results.

Vocabulary teaching centered on linguistic form is an important part of language curriculum, and the most effective three vocabulary teaching strategies are context guessing, word meaning learning and word formation learning. The use of system in College English classrooms can improve the effect of vocabulary teaching.

These methods are all based on having teachers in the lead role, where students are only participants, and their initiative is not high. The vocabulary learning system with feedback system designed in this paper can make up for the inadequacy of offline education.

3.1 Code Implementation of Interface Class

The project development architecture is designed first, and then the implementation process of each module is designed in detail, including business flow, control flow and function flow. JDBC (Java database connection) is a Java API used to execute SQL statements. It can provide unified access to a variety of relational databases. It consists of a set of classes and interfaces written in Java language. JDBC provides a platform on which more advanced tools and interfaces can be built to enable database developers to write database applications. In the design of the system, the common operations of the database are encapsulated with a custom class (JdbcDao). When the program needs to query the database, it only needs to call these methods and pass in the corresponding SQL statements. The structure of this class is shown in Figure 4.

3.2 Implementation of Main Function Modules

3.2.1 Design of Login Interface and Content Selection Interface

The login module needs the mobile phone number of the user to register, and accepts Ten cent QQ, We chat and mailbox to login, as shown in Figure 5.

3.2.2 Content Push and Test

The content of the words is chosen in Figure 6. The user can choose the level of words to learn. These vocabularies are stored in the SQL database. For example, we choose TOEFL, as shown in Figure 7.

If the user wants to learn new words instead of examinations, they can choose other content, as shown in the movie and TV series option in Figure 6.

The TOEFL test interface shown in Figure 7 can test the users vocabulary and give a grade test score. If the user does not reach this level, it is recommended that a lower test be conducted first.

In this system, listening, reading and speaking exercises can also be performed, as shown in Figure 8.

3.2.3 Self-Evaluation Mode

There is a self-evaluation mode in this system. When this mode is opened, there will be two options: known and unknown. If the user chooses 'known' the next word will be shown If the user chooses 'unknown' the screen shown in Figure 10 will be displayed. Figure 10 shows a sentence for the user to decide whether he or she knows the word. If he or she does not know the word, Figure 11 appears.

3.3 Information Feedback System

The information feedback system is an important part of the design of this learning system. Users can study in their own study room or at the same table as others, or they can also study and discuss in groups, as shown in Figure 12.
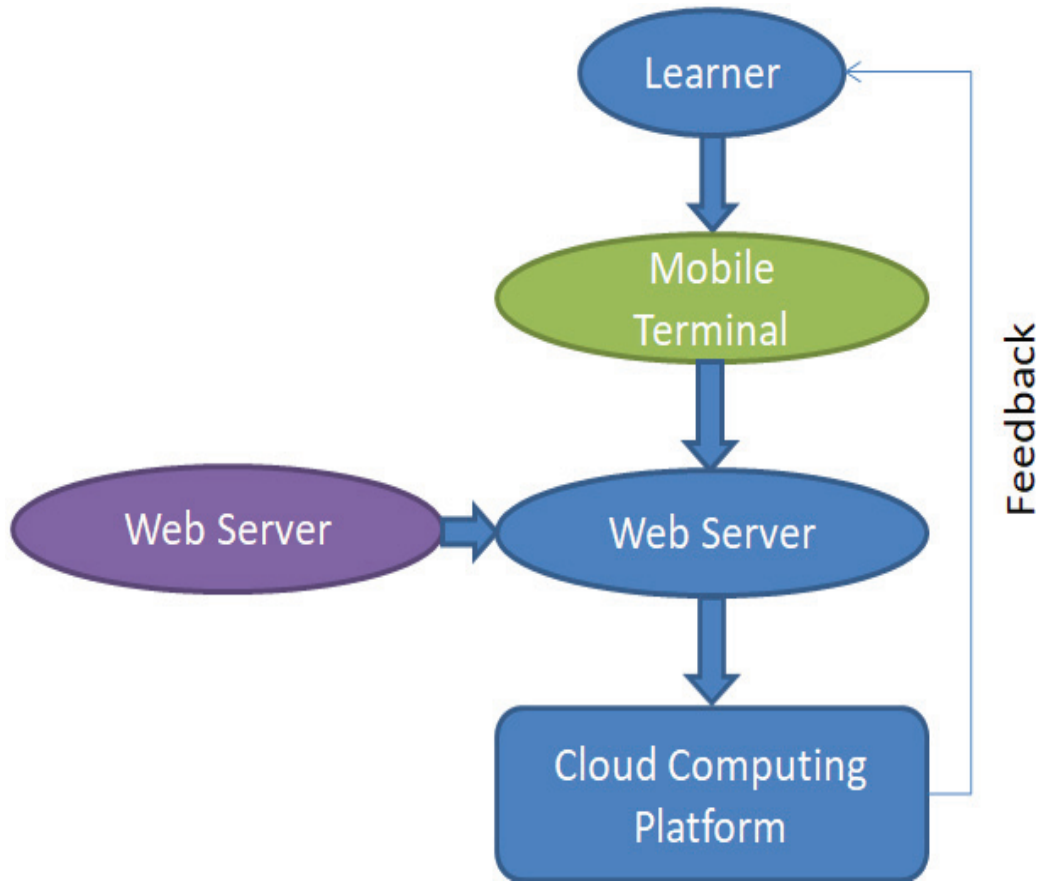
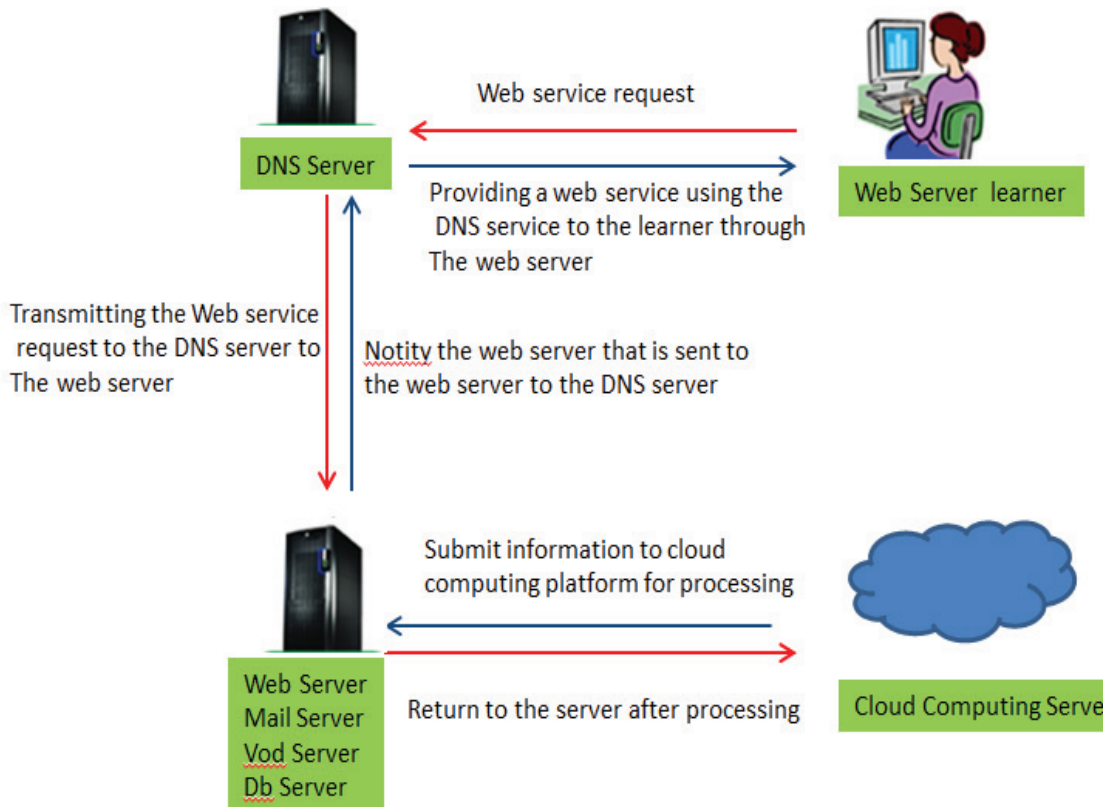**Figure 1** Cloud Computing System Architecture.
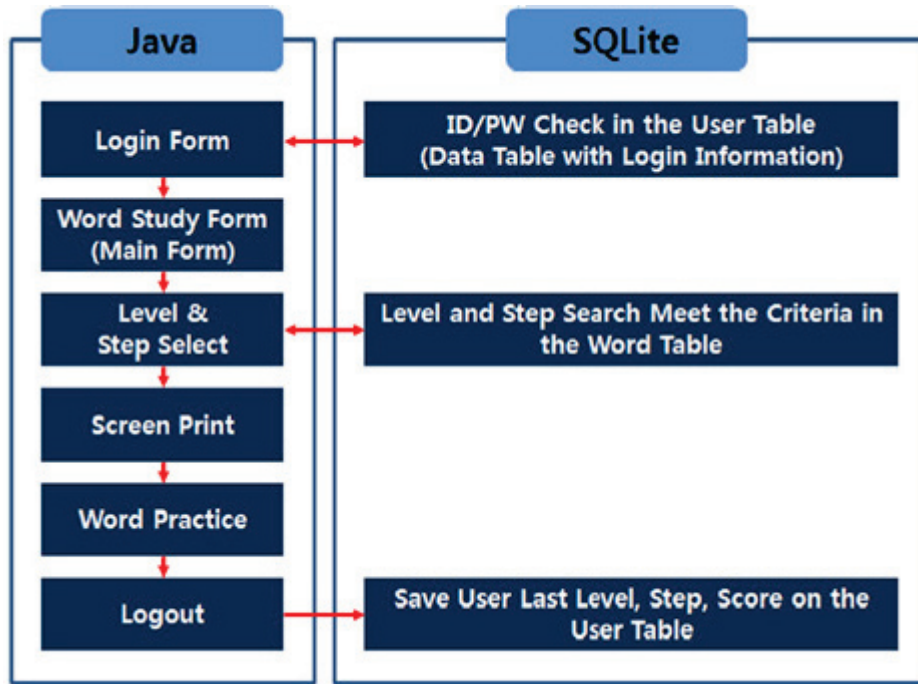

Figure 2 Web service method using web server.

Figure 3 System relationship.

Figure 4 Structural diagram of the custom class JdbcDao.

Figure 5 Login Interface[1].

[1] Figure 5 is the login mode of Weixin, Weibo and mobile phone number from left to right.

Figure 6 Selection Interface[2].

[2] Figure 6 Numbers from top to bottom, from left to right are CET-4, CET-6, Graduate Examination, Senior High School, IELTS, TOEFL, Movie and TV Drama, Primary School, Junior Middle School, English College, BEC, GRE, GMAT, English Counseling, Public English, Tuition, SAT, ACT, Medicine, Computer, Literature, Open Course, Other Learning Types

Figure 7 TOEFL Test Interface[3].

[3] Figure 7 is a one-minute vocabulary test with the green box as the starting link.

Figure 8 Word Learning Interface[4].

[4] Figure 8 Numbers from left to right are new words, today's words, remaining words and my words. Green graphics is the beginning of learning links. The bottom line from left to right is spoken language, listening, reading and sentence refining.
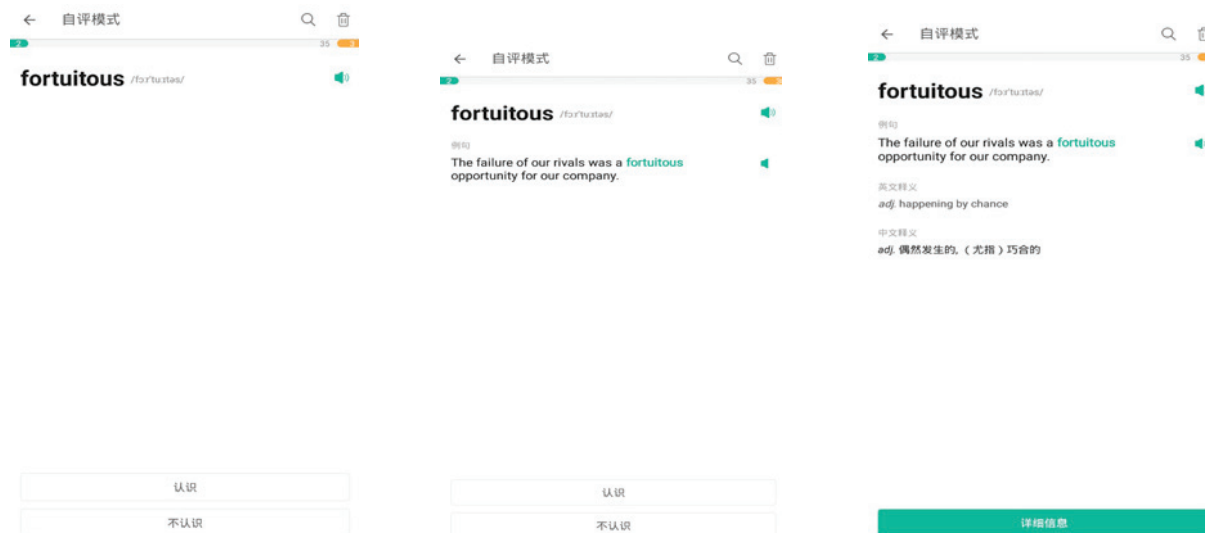
Figure 9 Self-Evaluation Model Interface 1.   **Figure 10** Self-Evaluation Model Interface 2.   **Figure 11** Self-Evaluation Model Interface 3.
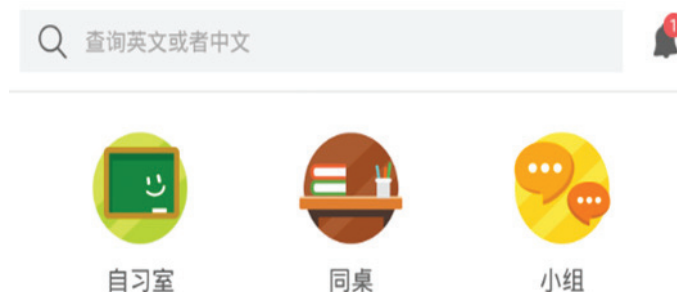

Figure 12 Information Feedback Interface[5].

The advantage of this learning system is that results can be discussed with others, and the discussion content can be sent to teachers or other people in the form of on-site email. In this way, teachers or others can respond to users and answer relevant questions in a timely manner.

4. CONCLUSIONS

With the increasing popularity of mobile clients, there has been a large impact on the use of conventional PCs, radios and television. More and more users are using a mobile client for online learning, and this enables users to receive more effective information. Globalization has become a trend. Users want to use this type of platform to learn anytime and anywhere without the limitations of time and location. Online feedback can greatly increase the interest in learning for the user. The mobile learning client meets all these requirements. The mobile phone App recitation system designed in this paper is the future direction of development. Although there is room to improve, it can be used as an effective means of learning English words.

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[5]Fig. 12 is the information feedback interface of Self-Study Room, deskmate and group, respectively.

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