The Design of English Independent Learning Platform Based on Computer Technology

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Abstract:
With the rapid development of information technology, online learning has become another way for learners to acquire knowledge. The network can provide learners with learning anytime and anywhere, which is conducive to stimulate learners' interest in learning and improve their learning effect. It is also an important means to build a learning society in China. In recent years, the English level of college students in China has been improving, and English teaching has made great achievements, but there are still many problems compared with the development and needs of the society, so it must be reformed. It is imperative for college English teaching to adopt self-learning mode based on computer network. Computer platform provides new tools and means for constructing self-learning mode in network environment. This article mainly explains English autonomous learning platform based on the technology of computer design, aiming at the main problems of current English teaching and learning of related elaboration, aims to improve learners' independent learning ability, strengthen to the requirement of information age and the foundation of lifelong education, so as to enhance the construction of platform for autonomous learning English.

Keywords: *Computer technology, English teaching, independent learning platform*

1 INTRODUCTION

English autonomous learning based on computer technology mainly refers to the process in which students use terminal computers and the network to visit the campus and complete their learning with the support of the network assisted system [1]. In the Context of English teaching in China, student-independent English learning refers to the ability of students to identify learning objectives and make learning plans, effectively use learning strategies and monitor them after understanding the basis of teaching objectives and requirements [2]. The rapid development of computer and the deep integration of curriculum have brought new opportunities to English teaching. Therefore, the establishment of networked college English autonomous learning and learning mode has gradually become one of the goals of English teaching reform [3].

2 REALIZATION OF ENGLISH AUTONOMOUS LEARNING PLATFORM BASED ON COMPUTER TECHNOLOGY

The platform needs to be configured with IIS in Windows XP Professional SP2 Web server, and choose Microsoft Visual Studio. NET 2005 as the development environment design and production, before the platform design needs to carry out data access [4]. The data access layer is responsible for providing data operations to the business layer, that is, it is responsible for dealing with the underlying database. All objects in the business layer access the database through objects in the data access layer [5]. Class is according to the business object in the data access layer to organize, each business object contains data may be different kinds of data in the table, it is composed of data access class unified organization into a concept of the object, it was quite an object-oriented database layer, is responsible for the mapping of the relationship between relational database and object-oriented [6].

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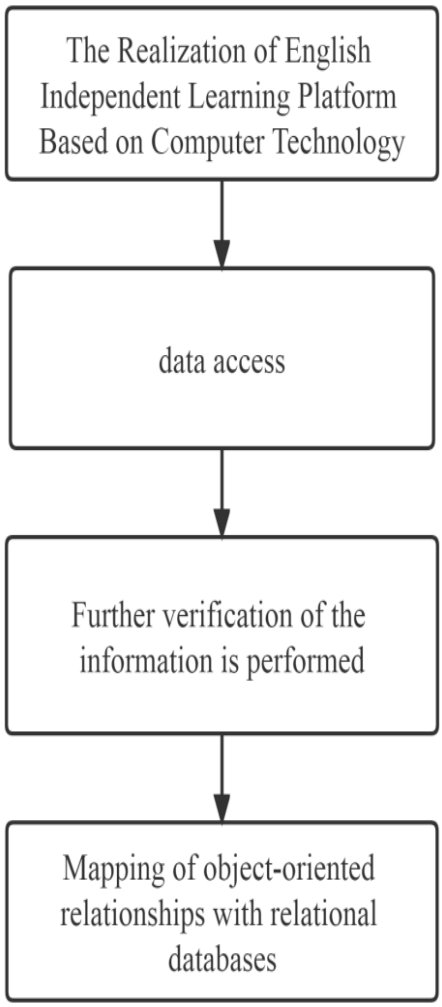

Figure 1: Implementation of the English Independent Learning Platform based on Computer Technology

There are generally two ways to connect to a database. The first way can connect to any ODBC or OLEDB data center, and the second way can connect to MS SQL Server. In terms of SQL Server alone, using the latter approach gives better performance than the former [7]. The database of this platform uses SQL Server2005, so SQL Managed Provider is used to connect the database. To avoid this unnecessary recompilation, place the connection string in the AppSettings field of the application configuration file web. config.

<configuration>

<appSettings>

<addkey = "ConnectionString"

value= " Data Source=SQLEXPRESS ; Initial Catalog=EnSp; User ID=saPassword=00

< / appSettings>

< / configuration>

Use the above formula for database connection and data storage.

In addition, controls need to be used to further verify the information when checking and confirming the password. When clicking the "Submit" button, the platform will automatically check whether the information format entered by the user meets the requirements. If so,

Save the user information to the user information table in the database. The main implementation methods are as follows:

Create related methods:

Public boolCheckUser(stringXUserlD)‖ Check whether the user exists according to userJD

SqlParameter [] Params = newSqlParameter [I];

DataBme DB = new DataBase () :

Params[O]=DB MakelnParam(" @userld "SqlDbType VarChar. 50, XUserlD);

SqlDalaReaderDR=DB RunProcGelReader(" Proc_UsersDetail ", Params);

if(DR Read())

return true.//

User exists: returns True;

else

{

Return false; // The user is absent: return False;

Public bool CheckPassword(string XUserlD)/Server UserlD and UserPassword Check whether the password is correct

{

SqlParameter[] Params=new SqlParameter[1];

The DataBase DB = new DataBase ();

Params[0] 2 DB. MakelnParam(" @usedd ", sqidbtype. VarChar,50, XUserlD);

SqlDataReader DR= db. RunProcGetReader(" Proc_UsersDetail "). Params);

If (Dr. Read ())

{

This. A userPwd = DR [" userPwd "]. ToStrin90;

Return true;

}

The else

{

Return false;

3 KEY TECHNOLOGIES AND APPLICATION EFFECTS OF ENGLISH AUTONOMOUS LEARNING PLATFORM

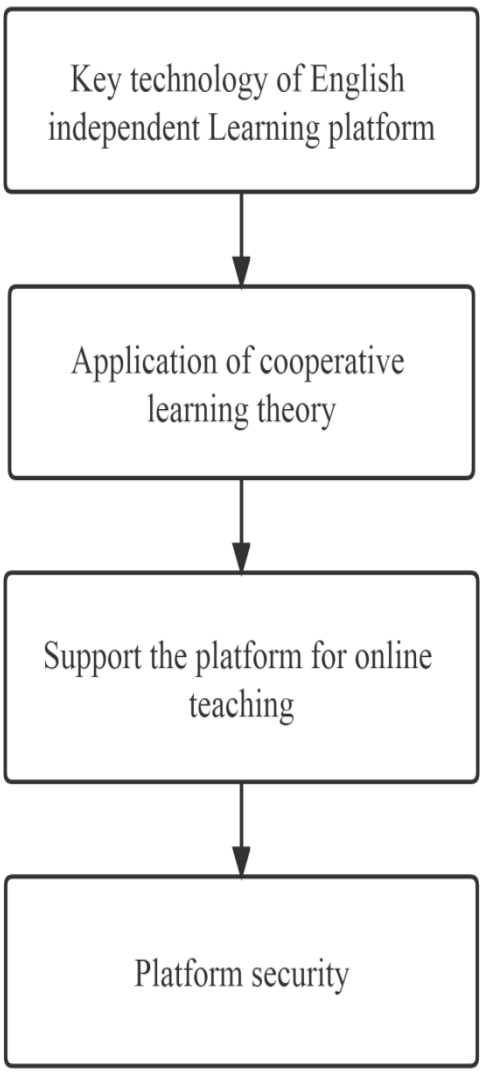

Figure 2: The Key Technology of the English Independent Learning Platform

The first is the application of cooperative learning theory. In order to improve the learning efficiency of English online classroom, the cooperative learning theory is adopted in the online classroom of the sub-module of autonomous learning module. Cooperative learning is based on the interpersonal relationship in classroom teaching, with the goal as the guide, so that students and teachers all participate in the way of group activities and team performance evaluation standards, learning method [8]. Through cooperative learning, students can realize mutual supervision in the process of autonomous learning and improve the efficiency of autonomous learning. Secondly, multimedia embedding technology. English autonomous learning platform is a curriculum learning system, which supports multimedia technology-based teaching. Teachers upload resources including text content, Flash, audio frequency, video frequency, pictures, PPT, etc. Students browse courses, download audio and video content online or through the interface. Therefore, platforms need to support multiple file formats [9]. The platform uses multimedia class ControlWeb, including a variety of user - defined controls, can be embedded in the course task content, support the platform to teach online. Taking Realplayer as an example, the specific way to realize multimedia embedded is as follows:

```
<object id="exobud1
"style="left": 0px;
width: 235px; positio
n: relative; top: 0px;
height: 196px"classid="
classsid: cfcdaa03
-8be4>
<paramname="__extentx
"value="6218
">
<paramname="__extenty
"value="5286
">
<paramname="autostrat
"value="0
">
<paramname="src
"value="<%=ripfile%
>">
<paramname="controls
"value="image
window, controlpanel
">
<paramname="loop
"value="1
">
<paramname="numloop
```

"value="0
">
</object>

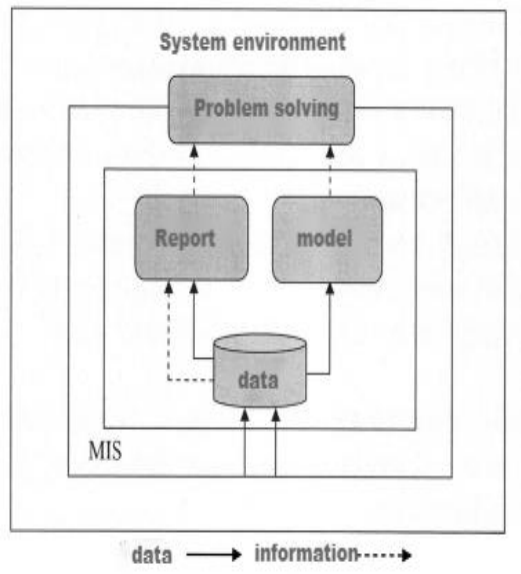

Figure 3. Management information system internal structure

Finally, platform security. The security of English autonomous learning platform is very important, and the background data contains large [10]. A lot of important information, if maliciously tampered with or data loss, will cause serious harm. Based on this, we must build a security defense system. Because the Asp.net application security is based on Windows security and IIS security, therefore, specific can take the following security policies: through Windows authentication; MD5 encryption algorithm is used to encrypt the teaching old uploaded by teachers, and students' information and answers are stored in the database through encryption algorithm [11]. Avoid SQL attacks by data types and filtering any illegal input.

Table1. the specific results

The specific results
In order to evaluate the application effect of the platform, this paper conducted a questionnaire survey among 428 students from two universities, considering both teachers and students.
The number of students who are willing to accept online independent learning increased from 6% to 80%, and the number of students whose English level improved increased from 28% to 75%. To sum up, adopting English autonomous learning platform for English learning can strengthen teacher-student interaction and improve English learning efficiency.
From the perspective of course richness, the content of English courses has increased from 10% to 65%, especially listening courses. This shows that the English autonomous learning platform can stimulate students' interest in learning by course content.
From the perspective of teacher participation, the number of teachers participating in students' English learning after class increased from 3% to 45%. This shows that the adoption of English autonomous learning platform can enhance teachers' participation.

In order to evaluate the application effect of the platform, this paper conducted a questionnaire survey among 428 students from two universities, considering both teachers and students [12]. The survey was conducted twice, once before and once a year after using the platform. 428 questionnaires were sent out for each survey, of which 416 were recovered in the first survey and 423 were not recovered in the second survey, with the recovery rate as high as 96%. SPSS was used for data processing, and the specific results were as follows:

(1) The number of students who are willing to accept online independent learning increased from 6% to 80%, and the number of students whose English level improved increased from 28% to 75%. To sum up, adopting English autonomous learning platform for English learning can strengthen teacher-student interaction and improve English learning efficiency.

(2) From the perspective of course richness, the content of English courses has increased from 10% to 65%, especially listening courses. This shows that the English autonomous learning platform can stimulate students' interest in learning by course content.

(3) From the perspective of teacher participation, the number of teachers participating in students' English learning after class increased from 3% to 45%. This shows that the adoption of English autonomous learning platform can enhance teachers' participation [13][14].

Table 2. Key technologies and application effects of English autonomous learning platform

the application of cooperative learning theory	multimedia embedding technology	platform security.
Cooperative learning is based on the interpersonal relationship in classroom teaching, with the goal as the guide, so that students and teachers all participate in the way of group activities and team performance evaluation standards, learning method.	The platform uses multimedia class ControlWeb, including a variety of user - defined controls, can be embedded in the course task content, support the platform to teach online.	A lot of important information, if maliciously tampered with or data loss, will cause serious harm. Based on this, we must build a security defense system.

4 CONCLUSION

In the era of "Internet plus", the independent English learning platform supported by MOOCs can help learners better conduct language learning. Because of the complexity of English autonomous learning situations and the diversity of learning objects, it is difficult to solve this problem with fixed rules. No online learning platform can adapt to all college English autonomous learning modes. Therefore, from the perspective of our own experience and experience, we put forward the design model and implementation scheme of college English autonomous learning activities based on the computer environment, which is inevitably one-sided. It only provides some references and inspirations for the teaching designers to carry out college English teaching in the computer environment.

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