Research on Formative Evaluation of College English Teaching Based on Online Learning Platform

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Abstract. In order to integrate information technology and teaching reasonably and improve teaching quality, this paper puts forward a formative evaluation study of college English teaching based on online learning platform. Take U campus as an example. The U campus is called the U campus intelligent teaching cloud platform, which is a one-stop online English teaching and learning platform integrating teaching, learning, evaluation, testing and research. Based on data design, the platform uses data science and machine learning technology to establish a typical learning model, and helps teachers and students realize personalized, intelligent, dynamic, autonomous and mobile teaching and learning through real-time data analysis and processing of teaching activities and contents in the background. This paper expounds that formative evaluation driven by big data should follow the principles of data, diversification, motivation and development, and establishes the evaluation index of qualitative evaluation in formative evaluation of college English based on online learning platform through expert evaluation. At the same time, this paper also provides students with learning effect information, puts forward personalized opinions and suggestions, makes scientific and reasonable predictions for students' future development, gives personalized development planning paths, helps students' progress and growth, and stimulates students' innovation vitality.

Keywords: online learning platform; College English; Teaching; Formative assessment

1 Introduction

The relationship between online teaching and evaluation model is dialectical. Online teaching is a teaching method, and evaluation method is an evaluation method. The evaluation model refers to the evaluation method of reforming the teaching plans according to the average results achieved in teaching activities, providing more reasonable suggestions or preparing the study contents according to the actual situation of each student [1]. Some scholars believe that formative assessment is "a part of learning, and students must take the initiative in their own assessment and conceive their own learning according to their understanding of how to learn better". Based on the above viewpoints, formative evaluation is to monitor and evaluate students' learning progress in educational activities, provide feedback for teachers and students, and use the information collected in the evaluation to adjust teaching to meet students' needs and improve teaching quality. Formative evaluation is relative to summative evaluation, which refers to a comprehensive evaluation of students' emotions, attitudes, strategies, interests, progress and achievements in the daily learning process [2]. "The purpose of formative evaluation is to cultivate the development and improvement of an ongoing activity (or people,
products, projects, etc.)" [3-4]. After the introduction of formative assessment into China, it has really caused college English teachers and college English teaching to use modern information technology to conduct formative assessment online, which is not only the necessity of the development of the times, but also has advantages that traditional assessment methods can't match. The Ministry of Education points out that one of the main links in college English teaching is teaching evaluation. To achieve the course objectives, there must be a scientific, comprehensive and objective evaluation system. College English teaching reform attaches great importance to education and developmental function, and actively encourages students to participate in practice. The focus of formative evaluation is to transfer the evaluation learning results to the evaluation learning process, and highlight the subjective position of middle school students. In recent years, with the rapid development of network technology, colleges and universities have been constantly creating campus networks, which have also expanded the application scope of networks in teaching. Relying on the network teaching platform, the goal of English teaching reform has been ensured. Figure 1 shows Stage-orientation of formative evaluation [5].

![Figure 1. Stage-orientation of formative evaluation](image)

2 **Formative Evaluation Principles of College English Based on Online Learning Platform**

Compared with the traditional evaluation methods, college English evaluation based on online learning has the characteristics of technology and intelligence. In practice, its evaluation should be based on some principles to reveal the characteristics of online evaluation, meet the needs of the times, and make the evaluation criteria of college English teaching more scientific, reasonable, and perfect [6-7]. The research on formative evaluation of college English teaching based on online learning platforms is a research field that combines computer technology and educational evaluation. In traditional college English teaching, formative assessment refers to the real-time or regular evaluation of students' performance during the learning process to understand their learning progress and areas that need improvement. The introduction of online learning platforms has brought new opportunities and challenges to educational evaluation. Computer technology has played an important role in this research field. Firstly, online learning platforms provide rich teaching resources and learning tools, such as online courseware, learning videos, exercise questions, etc., through which students can learn and practice. At the
same time, online learning platforms can also record students' learning behavior and achievements, including completed assignments, online test scores, frequency of participation in discussions, and so on. These data can be automatically analyzed and processed by computer technology. Research on formative assessment based on online learning platforms can utilize computer technology to achieve the following aspects of work:

Automated assessment: Using computer technology to develop an assessment system that automatically evaluates students' academic performance based on their performance on online learning platforms. This can reduce the workload of teachers and provide timely feedback to students.

Learning analysis: Analyze students' learning behavior and data through computer technology to understand their learning patterns, progress, and difficulties. This helps teachers provide personalized guidance and guidance based on the actual situation of students.

Collaboration and interaction: Online learning platforms can promote collaboration and interaction among students, and computer technology can support the implementation and evaluation of online discussions, collaborative projects, and other activities. With the assistance of computer technology, teachers can better monitor students' interactions and provide necessary guidance.

Data visualization: use computer technology to transform students' learning data into visual charts or reports, and present information such as learning progress and score distribution to teachers and students. This can help teachers better understand the overall situation of students and make targeted interventions and adjustments.

3 Based on the online learning platform of college English
formative evaluation index system construction measures

Formative evaluation of college English based on online learning platform should be student-centered, process-oriented, and through intuitive big data analysis and presentation, show the details of progress and point out the shortcomings, give intervention suggestions for students' individual learning, and help students to carry out self-diagnosis, self-reflection and self-improvement in their daily study, so as to realize the continuous improvement of personal ability. Formative evaluation of college English based on online learning platform can include automatic evaluation of online platform based on big data analysis, accounting for 70% of formative evaluation; And online teacher evaluation, online student self-evaluation and other evaluation, accounting for 30% of formative evaluation (teacher evaluation 16%, self-evaluation 8%, other evaluation 6%). The evaluation method should have the characteristics of big data, intelligence and networking, and the content can be innovated on the traditional evaluation content, highlighting the characteristics of informationization, science and technology and human-computer interaction, making the evaluation not only more scientific and reasonable, but also time-saving and labor-saving. On the basis of summing up daily teaching experience and using expert evaluation method, the formative evaluation of college English based on online learning platform is listed as follows:
3.1 Quantitative evaluation in formative assessment of college English based on online learning platform

The purpose of quantitative evaluation is to try to simplify the complicated educational phenomenon and curriculum phenomenon into quantity, and then judge the learning effect of the evaluation object by analyzing and comparing the quantity. In the formative evaluation of college English based on online learning platform, "platform automatic generation evaluation" belongs to the category of quantitative evaluation. The evaluation automatically generated by online learning platform system according to students' learning behavior trajectory and pre-programmed settings is based on big data, which is objective and highlights individuality, taking into account both individuals and groups, and is the development trend of information-based teaching evaluation. College English teaching based on online learning platform can make full use of modern information technologies such as network and big data when making formative evaluation[8]. Through specific data statistics, processing and quantitative analysis, we can reveal the quantitative relationship related to students' learning behavior, master the relevant quantitative characteristics and changes, and judge students' learning effectiveness from the quantitative relationship. Because there are many variables that affect and restrict students' learning behavior, only a few variables can be considered in the formative evaluation of college English based on online learning platform when constructing quantitative evaluation indicators. In the choice of variables, we should adhere to the "student-centered" educational philosophy, not only pay attention to the examination of students' cognitive level, such as the completion of students' online homework and tests, and the completion of independent learning of online courses, but also highlight the examination of students' learning emotions and attitudes, such as the sign-in of students' mobile phone class, interactive learning such as voting and questioning on mobile phones, and the learning duration of online courses. Specific contents and specific gravity are shown in Tables 1 and figure 2.

Table 1. Quantitative evaluation in formative assessment of college English based on online learning platform

<table>
<thead>
<tr>
<th>Evaluation type</th>
<th>Evaluation content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic generation and evaluation of network platform system</td>
<td>1. Students' mobile phone class attendance (15%)</td>
</tr>
<tr>
<td></td>
<td>2. Students' mobile interactive learning (15%)</td>
</tr>
<tr>
<td></td>
<td>3. The completion of students' autonomous learning in online courses (30%)</td>
</tr>
<tr>
<td></td>
<td>4. Students' online homework completion (20%)</td>
</tr>
<tr>
<td></td>
<td>5. Students' online test scores (20%)</td>
</tr>
</tbody>
</table>
The network platform system generates the evaluation automatically

**Fig. 2.** Quantitative evaluation in formative assessment of college English based on online learning platform

### 3.2 Qualitative evaluation in formative evaluation of college English based on online learning platform

In short, in the context of the rapid development of modern information technology, large-scale information technology has become a driving force for the development and transformation of education. The Plan of Action for the Promotion of the Development of Higher Information Technology Published by the State Council clearly stipulates that China's education should focus on the construction of a large educational and cultural database, make full use of large-scale information, promote educational reform, promote educational equity and improve quality of education. Information technology major error reporting system reform. The application of information technology major to college English teaching evaluation will promote the reform and self-cultivation of college English teaching. Collecting, cleaning, merging, and mining of large-scale data can not only save teachers time and energy costs, but also improve the accuracy, practicability, and scientificness of evaluation, provide powerful and practical information for adjusting teaching strategies, improve teaching quality and efficiency [9]. At the same time, it can also provide students with strong visibility, continuous and personalized personal learning behavior and performance big data. Provide students with information on learning effectiveness, put forward personalized opinions and suggestions, make scientific and reasonable predictions for students' future development, give personalized development planning paths, help students' progress and growth, and stimulate students' innovation vitality [10].

### 4 Conclusion

Against the background of the rapid development of information technology, information technology has become a driving force for the development and transformation of education. The Plan of Action for the Promotion of the Development of Higher Information Technology Published by the State Council clearly stipulates that China's education should focus on the construction of a large educational and cultural database, make full use of large-scale information, promote
educational reform, promote educational equity, enhance the quality of education, and improve the quality of education. Collecting, cleaning, merging, and mining of large-scale information can not only save teachers time and energy costs, but also improve the accuracy, practicability, and scientificness of evaluation, provide powerful and practical information for adjusting teaching strategies, improve teaching quality and efficiency. Analyze the advantages of college English teaching evaluation based on online learning and large-scale data compared to traditional analysis, and explain that the large-scale data-analysis method should be based on the principles of data-driven, diversity, robustness, and development. At the same time, this article presents an evaluation of college English learning based on online learning, including output measures, online teacher evaluation, online student self-esteem assessment, and other measures. Based on the experience of daily teaching, the expert evaluation system was used to establish a comprehensive evaluation index system for the evaluation of college English based on online learning.

References


