Reform and Practice of the Formative Evaluation System for Foreign Language Teaching Under the Background of Educational Digitization

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Abstract. In recent years, the digitalization of education has gradually become the main direction of education reform. Under the background, this study reforms the formative evaluation system of foreign language teaching. The study results show that formative evaluation based on digital information technology and the cloud platform is a kind of effective evaluation way, which is conducive to teachers more efficiently grasp the dynamic students in the process of learning, cultivate the students' subjective initiative and thinking ability. It is a beneficial exploration of the integration of information technology and education.

Keywords: education digitization · formative evaluation · foreign language teaching

1 Introduction

The digitalization of education is an important part of the digital China strategy. In recent years, China is deeply implementing the strategy of education digitalization to promote educational reform and innovation. In the report to the 20th National Congress of the Communist Party of China, General Secretary Xi Jinping pointed out that we should promote the digitalization of education and build a learning society and a learning country with lifelong learning for all. As far as higher education is concerned, digitalization provides an effective way for higher education to develop to higher quality. The deep integration of information technology and education is becoming the mainstream of the reform and development of higher education.

The concept of formative evaluation was first proposed by Scriven in 1967 and later adopted into the field of teaching by the American educator B.S. B1oom [1]. Different from the traditional final evaluation, formative evaluation emphasizes the evaluation process of teaching and learning process rather than the final result, and pays more attention to the cultivation of students' interest, attitude, participation and ability in the learning process [2]. Relevant research scholars at home and abroad have done a lot of research on the necessity and role of formative evaluation in the teaching process,

and they have achieved fruitful results [3]. But the previous research is more limited to theoretical research. Combined with the current digital education background, there are few achievements in applying formative evaluation to foreign language teaching. Therefore, this study will take Comprehensive Business English course in business English major as an example, and combine with the intelligent education platform to conduct an empirical study on the formative evaluation system of students.

2   Reform of the Formative Evaluation Mode of Business English Major's Comprehensive Business English Course

2.1   Introduction to the Comprehensive Business English Course

Comprehensive Business English course is a compulsory subject foundation course in business English major. It is mainly taught about the basic knowledge of business English language, including English vocabulary, grammar, chapter structure, business general knowledge, Chinese and foreign cultural, etc. The author carries out formative evaluation reform based on the wisdom platforms and websites to the Comprehensive Business English course. The target subjects are students in class of 22 and the major is Business English in Shandong Agricultural and Engineering University.

2.2   Formative Evaluation Design of the Comprehensive Business English Course Based on Education Digitization

(1) Increase the proportion and adjust the content of formative evaluation

Based on the talent training program of the business English major, the author has adjusted the previous course assessment method. The composition of students' assessment results comes from two aspects: One is the usual score, the other is the final score. The usual score consists of commonly used attendance, classroom performance and homework, accounting for 30%, and the final assessment is reflected in the final exam results, accounting for 70%. During the reform, the author has adjusted the assessment method as follows: the process assessment accounts for 50%. It is divided into two parts on the basis of making full use of the data of the intelligent education platform. One part is the ordinary performance scores, which mainly examines the students' attitude, enthusiasm and mastery of knowledge in the learning process. The other part is staged test scores. In the course of the semester, students' group activities and three tests are used to master the level of students' knowledge. The final assessment accounts for 50%, examining the overall grasp of the students at the end of the course. The specific scheme is shown as follows (Table 1).

(2) Make full use of relevant intelligent education platforms and websites

During the period of the reform, the course mainly uses the learning platforms and applications such as superstar learning platform, application of Pigaiwang, QQ group, questionnaire star, etc. Through the functions of self-evaluation, students' evaluation, mutual evaluation and teacher evaluation, these applications are supported by cloud computing and digital information technology to record the learning behavior of students inside and outside the classroom during the semester (Table 2) [4].

Table 1. Specific implementation plan of course assessment [self-drawing]

Ratio	Formative evaluation (usual score + staged test scores) 50% final evaluation (final exam) 50%		
Usual performance	evaluation mode	Score ratio	
	attendance	5%	
	mid-class performance	5%	
	after-class assignments	10%	
Unit test	evaluation mode	Assessment time (weekly)	Score ratio
	PPT Presentation	4	7.5%
	translation test	8	7.5%
	vocabulary test	12	7.5%
	writing test	16	7.5%
Final assessment method	Assessment form	Assessment category	Score ratio
	☑ Test Paper ☐ Other	☐ Open book exam ☑ closed book exam	50%

Table 2. The detailed usages of each platform or applications [self-drawing]

Digital education tools	Main functions
Superstar learning platform	Upload teaching materials, release pre-class tasks, in-class activities, group self-evaluation, mutual evaluation, release of phased tests, record attendance
MOOC Platform of Chinese University	Guide students to watch MOOCs on related topics
Pigaiwang	Online automated evaluation of writing tasks
Questionnaire star	Questionnaire survey, evaluation
QQ group	Answer questions, interactive platform

(3) Specific implementation path

According to the teaching objectives and teaching contents, the author takes Text One, Unit 3 as an example to divide the teaching into three links: before, during and after class.

Before class: The teacher guides students' preview activities by releasing pre-class preview reading guidance and related tasks on the Superstar learning platform. At the same time, the teacher supervises students' preview effect through the platform background data.

Task 1: This unit focuses on traffic. The teacher uploads videos and materials about the history of transportation and other materials of transportation in the platform. Guide students to find new words related to traffic before class and upload these new words to the platform; Task 2: According to the text one, the teacher guides the students to find

the relevant information of China subway, and then upload it to the superstar learning platform; Meanwhile, in each unit, there is one group will be required to present a powerpoint presentation in the class which is related to unit theme [5]. Task 3: After students preview text, they need answer the preview questions on the Superstar leaning platform. And they will full in the blanks and do the multiple choice questions related to the article in the questionnaire star. According to the data feedback of the platform and application, teachers could timely grasp the students' preview situation and adjust the class content in time.

In class: The teacher first initiates the sign-in activity in the Superstar learning platform, and the data obtained are used as the basis for attendance. After a brief comment on the pre-class preview, the teacher invites the ordered group to show the team powerpoint presentation in the class. After the presentation, the teacher initiates an evaluation in the Superstar learning platform. The teacher askes other students to evaluate the display group in the platform according to the quality of production, content, presentation, then the teacher will obtain a comprehensive score combined with the teacher evaluation as the evaluation score of this group. In addition, in the course of teaching, the teacher will make full use of the Superstar learning platform to carry out activities such as discussion, answering, voting and exercises and so on. In this way, the platform could instantly reserve the formative data. It could make the teacher a better understanding of students' mastery of knowledge and classroom performance.

After class: Task1: Students consolidate the knowledge through doing the exercises initiated by the teacher in the superstar learning platform; Task 2: Students submit the first draft about the traffic theme published on the Pigaiwang platform. The Pigaiwang platform provides automatic feedback for students' first draft, mainly focusing on some surface errors such as grammar, part of speech, word collocation, articles, and prepositions errors. After receiving the feedback from the platform, students make second revisions and submit them again. Teachers will conduct random matching and mutual evaluation setting. Students will receive some student's second draft which is matching through the platform. After consulting and thinking, students will correct the second draft of the given student, and then give evaluation and suggestions through the platform. In this way, students will improve their critical thinking ability and give full play to their subjective initiative. Finally, students will modify and submit the final draft according to the feedback of their peers. And the teacher will modify and evaluate the final draft from the aspects of structure and significance. The whole process not only gives full play to the immediacy and convenience brought by information technology, but also gives full play to the subjective initiative of students and teachers, so as to realize the diversity of evaluation subjects and evaluation paradigm. Task 3: After the students learn the unit, the teacher ask the students to review the unit, and make self-evaluation and reflection on the study of this unit.

In addition, three tests on vocabulary, translation, and writing are set during the semester. In the superstar learning platform, the examination function is used to test the students' periodic learning situation, and these three tests are important indicators of formative evaluation. According to the teacher's setting about the test, the students could immediately see the test results and the answers after the test, so that they can quickly realize their weak points at this stage, so as to further consolidate the knowledge points.

The following diagram shows the way about using the cloud platforms to collect the formative evaluation data (Fig. 1).

(4) Practice results and summary

After a semester of reform practice, students in the class of 22 have made more progress than the students in the class of 21 in terms of learning attitude, enthusiasm, subjective initiative and the final exam results. The charts below compare the results of the two class (Tables 3 and 4).
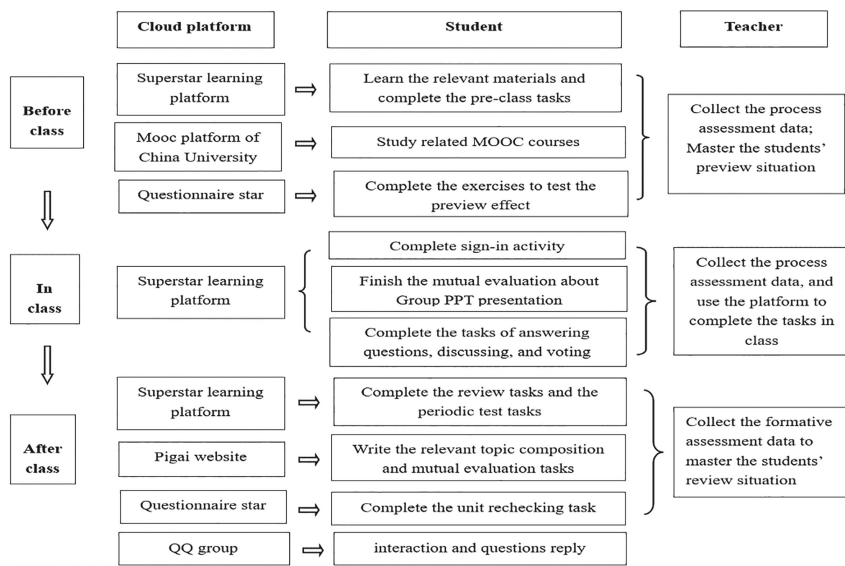

Fig. 1. The way about using the cloud platforms to collect the formative evaluation data [self-drawing]

Table 3. [Download from the website of the Academic Affairs Office in Shandong Agriculture and Engineering University]

Student performance of Shandong Agricultural Engineering College
First semester of the 2021-2022 academic year

Contractor: School of Humanities   Courses: Comprehensive Business English

Class: 21 Assessment Method: Examination Number: 31

Score segment (grade)	[100-90] (outstanding)		(90-80) (good)		(80-70) (secondary)		(70-60) (pass a test)		(60-0) (fail)	
class	The final exam	synthesize	The final exam	synthesize	The final exam	synthesize	The final exam	synthesize	The final exam	synthesize
Number (31)	0	0	6	11	10	12	6	6	8	1
percentage	0.00	0.00	20.00	36.67	33.33	40.00	20.00	20.00	26.67	3.33

Final exam mean score: 67.60 Pass rate: 73.33% Standard deviation: 13.99

Maximum score: 89.00 Minimum score: 33.00

Comprehensive average score: 75.73 pass rate: 96.67% Standard deviation: 8.81

highest score: 89.00 lowest score: 53.00

Table 4. [Download from the website of the Academic Affairs Office in Shandong Agriculture and Engineering University]

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Student performance of Shandong Agricultural Engineering College
First semester of the 2022-2023 academic year

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Contractor: School of Humanities   Courses: Comprehensive Business English
Class: 22   Assessment Method: Examination   Number of students: 29

Score segment (grade)	[100-90] (outstanding)		[90-80] (good)		[80-70] (secondary)		[70-60] (pass a test)		[60-0] (fail)	
class	The final exam	synthesize	The final exam	synthesize	The final exam	synthesize	The final exam	synthesize	The final exam	synthesize
Number (29)	6	5	14	18	7	6	2	0	0	0
percentage	20.69	17.24	48.28	62.07	24.14	20.69	6.90	0.00	0.00	0.00

Meverage score of final exam: 82.97 Pass rate: 100.00% Standard deviation: 8.35
highest score: 93.00 Minimum score: 64.00

Comprehensive average score: 84.93 pass rate: 100.00% Standard deviation: 4.89
Maximum score: 91.00 Minimum score: 74.00

For students, the traditional evaluation method is generally that teacher's evaluation is the main component, and students are in a passive receiving position. The use of information technology can effectively carry out self-evaluation, mutual evaluation and teaching evaluation activities. In this way, students' enthusiasm and initiative can be better displayed. Through students' self-evaluation and mutual evaluation, it is easier for students to recognize the problems in the learning process, and improve their critical thinking ability through their reflection.

For teachers, the tasks assigned by teachers used to manual correction, which requires teachers to spend a lot of time on students' task feedback. Using education platforms such as Superstar learning platform and Pigaiwang platform, statistical and quantitative analysis of test results can be obtained instantly, and evaluation and modification can accurately explain each student's tasks, which makes teachers have more energy on teaching research and scientific research. The development of digital education technology brings new opportunities and challenges to classroom assessment. Teachers' ideas should also conform to the development of The Times [6]. We should put more energy and time into mastering mobile learning technology and operation, and improve the ability and quality of digital information.

3   Conclusion

Based on the digital information technology, the research takes the Comprehensive Business English course as an example, and conducts teaching practice on the formative evaluation of foreign language teaching. The practice results show that the formative evaluation which is based on digital information technology and cloud platform is a more effective evaluation method. Using the diversification of evaluation means the teacher can better improve the teaching quality and timely grasp students' learning dynamics. Meanwhile, students can more fully grasp the knowledge, and improve their independent

learning awareness and ability. The digital multi-dimensional evaluation method pays more attention to the learning process and ability cultivation. Instead of the traditional evaluation, it is a beneficial exploration of the integration of information technology and education.

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