Formative evaluation mode merge with information-based teaching

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Abstract

Formative evaluation is a more authentic, comprehensive and objective evaluation model, which evaluates and assesses students' learning attitude, professional skills and comprehensive abilities. In this paper, formative evaluation and information-based teaching will be deeply integrated, from the pre-class, in-class and after-class dimensions to build an evaluation system and implementation plan, and put forward optimization strategies on the basis of practice.

Keywords

Formative evaluation, evaluation; information-based teaching.

1. Introduction

The concept of formative evaluation was first put forward by American educational expert Scriven Michael in his "Perspectives of Curriculum Evaluation" in 1967. Formative evaluation is based on the continuous observation, recording and reflection of the whole process of students' learning. Formative evaluation builds a bridge between teachers and students. Teachers can adjust teaching methods and teaching progress in time according to students' learning conditions, strengthen the targeted guidance to students, enhance students' self-confidence and encourage students to study independently. Students can also adjust their learning attitudes and methods to improve their learning efficiency according to the data published in the formative evaluation process. Formative evaluation has obvious advantages over other evaluation models, and many colleges and universities have explored formative evaluation.

With the rapid development of Internet technology, the teaching mode based on information network is more and more popular in College teaching. Mosoteach (http://www.mosoteach.cn) is the first free interactive classroom teaching App in China, and the only intelligent teaching tool integrated with artificial intelligence technology. It is based on the mobile Internet environment, realizing the real-time interaction between teachers and students, pushing resources and assignment tasks, perfecting the incentive and evaluation system to stimulate students' autonomous learning on the network, recording students' learning behavior in real time, realizing the formative evaluation of students' learning, and providing teachers with high-quality teaching research data. In this paper, the effective information-based teaching support environment - Mosoteach as a formative evaluation software tool, explore and practice the formative evaluation model of vocational colleges as an example.

2. Implementation plan of formative evaluation

2.1 Reformative evaluation system

The traditional teaching evaluation model for students is mainly based on summative evaluation, supplemented by procedural evaluation. Summary evaluation usually appears in the form of final exam, and procedural evaluation is easy to record statistics by attendance and homework. This evaluation model seems reasonable and comprehensive, but in fact, there are some problems, such as attaching importance to the results rather than the process, lacking of communication and feedback, which to a great extent stifle students' enthusiasm for learning, blunt the thinking ability and innovation ability of analyzing and solving problems, and fail to reflect the training objectives of high-quality comprehensive talents. Formative evaluation pays attention to students' knowledge,

skills and attitudes in the process of "formation", to monitor and evaluate the progress of students' learning, to provide feedback for teachers and students, from the three dimensions of pre-class, in-class and after-class evaluation of the whole process.

The first stage of learning - pre-class "information transmission" is carried out by students before class. Teachers provide micro-lessons and courseware for students to learn. Through the knowledge point test, students' learning trajectory and learning attitude are tested. The second stage of learning - "assimilation and internalization" in class, the traditional classroom interaction is usually questioning, only by raising hands or by the teacher to the students can have the opportunity to interact, formative evaluation for each student to participate in the opportunity to interact. The third stage of learning - "Deepening and Expanding" after class, through the homework, inspect the students to complete the quality and timely submission. The formative evaluation process is shown,see Fig. 1.
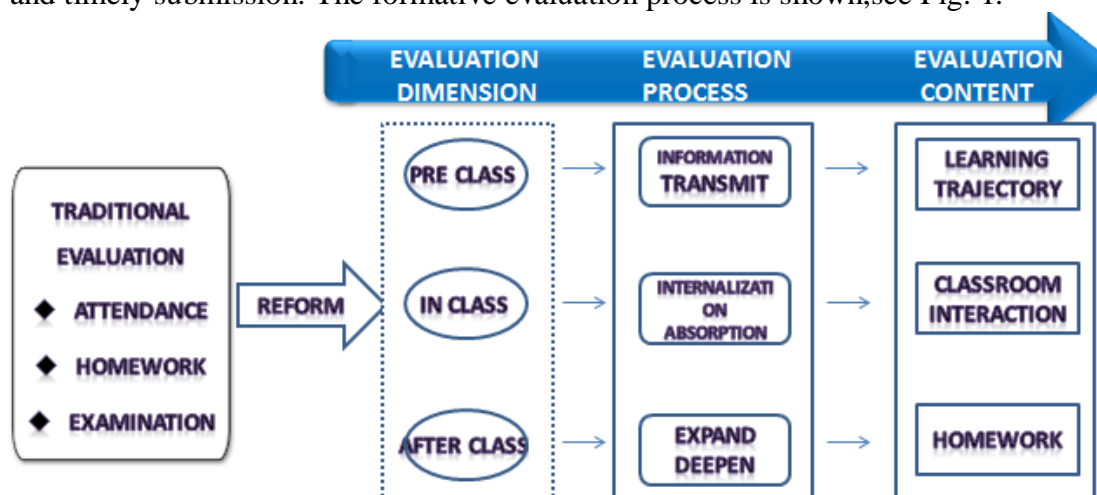

Fig. 1 Formative assessment system

2.2 Implementation of formative evaluation

2.2.1 Pre class launch

Relying on the information-based teaching environment, teachers upload teaching resources such as courseware, reference cases, pre-class test papers and training materials to the cloud class before class and push them to the students' computers or mobile phones. Every teaching resource can be set "experience value" and students can get "experience value" if they learn these resources. Learning can't get "experience value". For special teaching resources, such as video resources, can be set not drag learning, students who have not completed the study can't get the "experience value". Students learn autonomously before class according to teachers' requirements. Teachers analyze each student's learning trajectory by monitoring the students' pre-class learning completion, pre-class test accuracy, knowledge point mastery and so on, accurately obtain the learning situation and give the results.

2.2.2 Classroom interaction

There are many interactive ways in classroom teaching, such as brainstorming, questionnaires, Q & A discussions, tests, assignments / group tasks, classroom performance (including hands-up, rush response, selection, group evaluation), and so on. Each activity can also be set "experience value", students can participate in the activities according to the participation of the corresponding "experience value", such as the test is based on the proportion of the right answer to the experience value. Instant classroom activities, such as raising hands, rushing to answer, and shaking randomly selected students to answer questions, can also support teachers to promptly give "experience value" incentives. In brainstorming and question-and-answer discussions, teachers can also give students instant praise for the extra "experience value," which can greatly improve the enthusiasm of students to participate.

2.2.3 After-school promotion

Traditional corrections should focus on quantitative evaluation and emphasize the role of appraisal. However, a large number of teaching practice shows that such evaluation results can not accurately reflect the students' learning situation, can't reflect the actual application of knowledge, let alone tell them how to improve and improve in the future learners. Formative evaluation pays attention to the analysis and application of students' professional knowledge and skills as well as the exertion of their creativity, makes full use of the guiding function of evaluation, timely evaluates students' individual learning status, the degree of mastery of knowledge and skills exposed in homework and their general abilities, and reminds students of their current abilities. Improve after learning. Teachers should seize the opportunity to give timely feedback, not wait for homework to pass on the results to students for a long time. Feedback can also help students get a sense of achievement and understand their own shortcomings, so as to improve the evaluation effect.

2.3 Establishing evaluation rules

According to the nature of the curriculum and the characteristics of the students, the formative evaluation system of the specific curriculum can refer to Figure 2. The evaluation points can be divided into three dimensions: pre-class, classroom and after-class. They will focus on the whole learning process, attach importance to the management and control of the whole learning process, and establish interesting, participatory and motivational evaluation rules. Pre-class evaluation points include: video learning, knowledge point testing and discussion and answer, etc., through pre-class evaluation points, to help teachers understand students' preview attitudes and preview effect; classroom evaluation points include: attendance, interactive forms of various topics, etc. Cloud Class can timely record students' participation in the interaction, and score for them. After-class evaluation points include: after-class tasks, module testing and demonstration and defense, after-class evaluation module exposes the students' mastery of knowledge, skills and general abilities, after each homework or test is completed, I will timely feedback the comments and results to the students through the Cloud Class, so that students can obtain certain achievements. Feel and understand your shortcomings and strive for good results in the next task.

Ordinary teaching formative evaluation points are decomposed into various resource learning, teaching activities learning, after-school tasks, curriculum design and other processes, teaching and learning operations can be quickly completed on the mobile phone, teachers to achieve the usual performance evaluation award, statistics. In the member module of Cloud Class, teachers can always pay attention to the acquisition of each student's experience value, including statistical data and learning path data, and students can also pay attention to their own experience value, which is very helpful to realize the immediate feedback of process evaluation and learning guidance.

2.4 Analysis and evaluation effect

The whole learning process of the students has data records, and according to the students' learning situation to give the corresponding experience value, the experience value of various activities according to a certain weight of the total score of students, so the evaluation of students is not a single result evaluation, but a multi-dimensional process evaluation. Students can know their own learning situation and other students' situation at any time on the mobile phone. Most students are concerned about the value of experience. They will compare the difference of the value of experience between students, think about the causes, and clearly understand their strengths and weaknesses. Teacher's praise can increase the value of experience when participating in classroom interaction. In order to obtain additional rewards, students often explore their own learning, which greatly stimulates the depth and scope of students' thinking. This multi-dimensional process evaluation not only examines students' mastery of knowledge, but also examines students' learning attitude, personal time management ability, cooperative ability, autonomous learning ability, etc. The evaluation results are more realistic and comprehensive.

3. The optimization strategy of formative evaluation of curriculum

3.1 Not many kinds of activities in each class

Evaluation is the main component of teaching content, to test whether the students' learning goals are achieved, and so is formative evaluation. Therefore, formative evaluation content should be formulated strictly according to the learning objectives. The content of formative evaluation runs through the activities before, during and after class. The various forms of activities stimulate students' interest and improve their participation. But the activities must be carried out in accordance with the needs of the curriculum, not the more the better, we are not to use cloud class teaching activities. Therefore, there are not many kinds of activities in each teaching unit. Use one type to make it play its best role. For example, if class discussion activities are set up, enough time should be allowed for students to think and code, and then summarize and comment.

3.2 Analysis of the completion of the activities of students in time

In the formative evaluation model supported by cloud classes, teachers pay attention to students' use of professional knowledge, skills and creative ability, make full use of the evaluation of the guidance function, timely evaluation of students; teachers can always check the students' learning reports and activities experience, to understand the specific learning of each student. Learn the situation, export data, carefully analyze the important activities carried out to understand the students' individual learning status, exposed in the study of knowledge and skills mastery and their general ability. According to the completion of students' activities, teachers can find out whether the degree of difficulty of the course is appropriate, which places need to be explained again and again, and optimize and adjust the course schedule and degree of difficulty.

4. Conclusion

In the formative evaluation model supported by cloud class, the whole learning process of the students has data records, and according to the students' learning situation to give the corresponding experience value, the experience value of various activities according to a certain weight of the total final evaluation of students, so the evaluation of students is not a single result evaluation, but more. Process evaluation of dimensions. Formative evaluation runs through the whole learning process, making the whole learning process of students have a certain degree of tension, promoting the initiative of students in the learning process, inspiring students' creative thinking, strengthening the understanding, mastery and application of knowledge in the learning process, gradually cultivating basic professional skills and solving practical problems. The comprehensive ability of questions. Teachers can also understand students' knowledge and adjust their teaching methods in time. Combine learning and evaluation, develop efficient classroom, and effectively attract students to participate in the learning process. Formative evaluation practice, the whole process of evaluation mode, so that the performance of the course is more fair and just.

Acknowledgements

References

[1] Cui Zhezhu. Problems and optimization strategies of formative assessment in University Curriculum. Journal of Hebei correspondence university [J].2016 (11):147-149.

[2] Lin Yezhi. Design thinking of formative assessment in Higher Vocational English Teaching in China. Journal of Suzhou Education Institute[J]. 2018(2):141-142.

[3] Li Ying. Application of formative assessment in Ideological and moral cultivation in Vocational Colleges: a case study of Guangdong industrial and commercial Career Academy. Journal of Jiamusi Career Technical College [J].2017 (9): 173-174.