

A Study on the Evaluation Strategies of Supervisory Classroom for Engineering Majors in Ethnic Institutions Based on OBE Concept

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Abstract

This paper mainly discusses the construction of the evaluation system of classroom education quality in colleges and universities based on the OBE concept, analyzes the shortcomings in the specific practice process, and discusses the principles, evaluation methods, and related contents of the construction of the evaluation system on the premise of analyzing the problems, with the aim of constructing a correct and efficient evaluation system of classroom education quality, gradually improving the education and teaching standards of colleges and universities, and cultivating more excellent talents.

Keywords: new engineering, OBE concept, evaluation system, evaluation principles, evaluation strategies

1. Introduction

Teaching supervision is a system to supervise, inspect, evaluate and guide the whole process of teaching activities and its management in accordance with the relevant regulations in order to fully implement the national education policy, so as to ensure the quality of teaching and promote the development of the university, which is an important part of the teaching quality monitoring system of colleges and universities. Since the implementation of teaching supervision system, it has played an irreplaceable and important role in promoting teaching reform, strengthening teaching management, improving teaching work and enhancing teaching quality in all universities. At present, educational supervision is not given enough attention in the teaching work of schools, and there exists the phenomenon of low teaching efficiency. The current teaching quality management in many colleges and universities in China is still at the primary stage of quality monitoring of teaching links, with preliminary supervision and regulation functions, but lacking improvement functions.

At the same time, in order to meet the challenges of the new industrial revolution to higher engineering education, and at the same time to meet the real needs of people who are more concerned about the return of educational input and actual output due to the rise of public accountability. As an advanced educational concept, it was proposed by Spady et al. in 1981 and soon gained attention and recognition, and has become the mainstream concept of educational reform in the United States, the United Kingdom, Canada and other countries. It is of practical significance to guide the engineering education reform with the concept of result-oriented education. However, the work of teaching supervision needs to be further strengthened to continuously improve the quality control system within the school and comprehensively enhance the quality of teaching and talent training. How to innovate and effectively integrate OBE concept in the construction of supervision system and supervisory classroom evaluation of engineering majors in ethnic colleges and universities is still an important topic to be studied in depth.

2. The Difficult Problems Existing in the Classroom Evaluation System

At present, the supervisory classroom evaluation system in colleges and universities shows many shortcomings

in actual operation, which needs further study and improvement by relevant staff. According to the survey, several main factors affecting the quality of supervisors' classroom evaluation are as follows.

2.1 There Are Deviations in the Concept of Teaching Quality Evaluation

The first one is the lack of concern for supervisory classroom evaluation, and the second one is the lack of "people-oriented" ideology. Factors: 1) The evaluation index of the supervisor's classroom is not accurate and reasonable, and the evaluation standard is too rigid, which weakens the uniqueness and creativity of the teacher's teaching and ignores the internal and external subject value orientation of the teacher and students. 2) The important role and enthusiasm of leaders, experts, teachers and students in supervisory classroom evaluation are not brought into play. An excellent evaluation system requires the joint efforts of many aspects to be built and completed, and requires the cooperation of many aspects. 3) Most of the supervisory classroom evaluations are mainly in the form of summaries, with little attention paid to the teacher's professional progress, which discourages the teacher's work initiative.

2.2 Lack of Science in Supervisory Classroom Evaluation Standards

They pay too much attention to the evaluation inside the school and ignore the evaluation outside the school; they pay too much attention to the evaluation of teachers' basic teaching skills and ignore the evaluation of teachers' teaching research ability and teachers' creativity; they pay attention to the evaluation of easy-to-operate indicators such as normality and knowledge and ignore the evaluation of teachers' own quality and other criteria that are not easy to operate; they pay attention to the evaluation of results and ignore the evaluation of process, the evaluation of links and the overall evaluation. These are the fundamental reasons why supervisors' classroom evaluations do not accurately reflect the objective situation.

2.3 The Feedback of Information After Evaluation Is Not Timely and the Methods of Rectification Are Not Appropriate

Various information of evaluation of teaching quality cannot be reported on time, there is no professional management department, the real reflection of teaching and research departments and students are neglected, especially the reflection of students, and there is a lack of punctual evaluation, besides, there is a lack of proper rectification methods for the reflected information, the reflection is too slow, no attention is paid to the solution of problems, the phenomenon of leaking information, and a good incentive system is not established.

Generally speaking, evaluation index is the carrier of classroom teaching quality evaluation content, and also the external expression of teaching quality evaluation content. The scientific validity of evaluation indexes is the key influencing factor for the validity of classroom teaching quality evaluation. At present, the indicators used for teaching quality evaluation have certain defects due to the influence of various factors, which are mainly manifested as "single, lack of dimension and lack of hierarchy". The indicators are too general, and most of them are one-time indicators, and there is no correlation between them. When there are indicators that are difficult to measure, they cannot be replaced by other similar or measurable indicators. The ultimate purpose of classroom supervision is to examine the teachers' ability to organize classroom activities, and the indicators rarely reflect the contribution of the environment to the quality of teaching.

The current evaluation of classroom teaching quality often takes leadership evaluation, supervisor evaluation, manager evaluation, peer evaluation and student evaluation as the main body, which superficially forms a three-dimensional evaluation system with multiple participation, but there are many unscientific places. For one thing, teaching activities exist in the school, but it is not isolated in the school. The professional ability formed by teaching activities is finally tested in the society. Therefore, enterprises should have a say in the evaluation of teaching quality. Secondly, colleges and universities have different practices and different effects on determining the evaluation weight of each subject. The survey results show that more than half of the colleges and universities mainly count the evaluation results of supervisors, managers and students into the total evaluation results, and even some colleges and universities only count the evaluation results of supervisors and students into the total evaluation results, and the evaluation of other subjects is only for reference. In addition, colleges and universities often lack scientific analysis and empirical comparative research in setting the weights of selected subjects into the results, but rely on subjective estimation and experience to determine.

3. The Construction Principle of the Classroom Evaluation System Based on the OBE Concept

OBE (Outcomes-based Education) means "Outcomes-Based Education" and is centered on the idea that the goal of instructional delivery and instructional design is to achieve the final learning outcomes that students will achieve through education, with an emphasis on the true competencies that students will acquire at the end of the learning process. For this reason, OBE is sometimes defined as competency-based, needs-based, or goal-oriented education. It is a student-centered, outcome-oriented education model that differs significantly from traditional classroom teaching and learning, which leads to significant changes in the evaluation of classroom teaching quality.

(1) The same criteria are used for internal evaluation and external evaluation.

To conduct teaching quality evaluation, it is necessary to comply with the guideline of integrating internal evaluation and external evaluation.

(2) The principle of unity of orientation and motivation.

The main content of teaching quality evaluation based on OBE concept is closely connected with the quality of education students, and the evaluation rules should be made according to social needs, and the final results of the evaluation should help schools and teachers improve their personal teaching level and provide relevant information to teaching management.

(3) The principle of unity of scientificity and operability.

The evaluation system needs to conform to the characteristics of undergraduate higher education, and the evaluation content and standards should be formulated with certain accuracy, so that the teaching level can be accurately measured. The differences between different majors and subjects should be taken into account under the relevant conditions to ensure that they can be objective and factual, fair and just, and they should be operated according to the standards to further enhance the accuracy and authenticity of the supervisor's classroom evaluation.

(4) The principle of combining qualitative and quantitative evaluation criteria.

Evaluation guidelines should not only have a qualitative approach, but also a quantitative approach, and the evaluation standards of supervisory classroom vary greatly from school to school and from profession to profession. The two evaluation methods will be skillfully used to build on the strengths and avoid the weaknesses in order to achieve better results.

4. A Strategy to Constructing Teaching Quality Evaluation System Based on OBE Concept

The core of the OBE philosophy is to enable students to achieve the desired learning outcomes and real competencies at the end of the learning process. The instructor must teach students not only the basic principles and essentials of knowledge, but also how to apply them in a practical way. At the same time, the teacher must mobilize all the factors that can be mobilized, including stimulating students' enthusiasm and interest in learning. Therefore, under the OBE concept, the previous classroom teaching norms should be appropriately adjusted. We pay attention to the innovation of classroom teaching reform and the flexible application of various teaching methods and approaches, such as blended learning, inquiry-based learning and research-based learning, in our daily teaching work, so as to continuously improve students' thinking ability and engineering innovation and practice ability.

(1) Establish a correct view of supervisory classroom evaluation, there should be a correct concept of supervisory classroom evaluation, establish a correct evaluation system, use accurate methods and means to make supervisory classroom evaluation real and effective, so that teachers can realize to the greatest extent that supervisory classroom evaluation is the best way to motivate and improve their own level, so as to achieve the goal of improving teaching quality.

(2) Take reflection and rectification as an important part of self-evaluation, which needs to be implemented in the reflection and rectification of teaching management units, the reflection and rectification of teaching and research departments and the personal reflection and rectification of teachers.

(3) Establish evaluation standards of OBE concept, take scientific and reasonable, practical and effective evaluation standards as the basic requirements, highlight the core elements, promote the new mode of combining supervision, guidance, research and evaluation, adapt to the development of new situation, and promote the reform of classroom evaluation standards.

(4) Effectively promote the diversification of the subjects of online evaluation, the main listeners are peer teachers, faculty members, supervisory managers, and students are also required to conduct online evaluation according to the specified time. Every teacher needs to participate in the evaluation.

(5) The use of evaluation results needs to be rigorous and reasonable. Focus on maintaining the initiative of teachers and truly play the role of motivation and spurring, ultimately achieving the purpose of common progress and improving the quality of classroom teaching.

5. Application Innovation Points

(1) The traditional classroom, which many people refer to as a "duck-filling" classroom where teachers instill knowledge into students and teachers are consciously or unconsciously labeled as "authorities," and students become passive "containers" of knowledge as a matter of course, is transformed from a teacher-indoctrination classroom into a teacher-student "dialogue classroom." According to Albert Einstein, "Interest is the finest teacher." Students in such a classroom lack interest and excitement and are weakly motivated to learn. Learning

is hence ineffective. The “conversation classroom” can make the dialogue between teachers and students about knowledge, thinking, and the mind possible. The original one-way transfer of knowledge from “teacher to student” becomes “teacher to student,” “student to teacher,” and “student to student” through the “knowledge dialogue,” which alters the direction of knowledge transmission. The “knowledge dialogue” fully reflects teaching and learning together, and the students’ enthusiasm and initiative are well mobilized, effectively stimulating the students’ consciousness of learning. The “thinking dialogue” necessitates the teacher to guide students to acquire knowledge through exploration, transforming the teacher-led “period classroom” into a student-led “q classroom”. In the end, students use their own initiative to change all the “question marks” placed by the teacher and the “question marks” they find into “periods.” The initial “knowledge classroom” is changed into a “emotional classroom” through “Emotional Dialogue”. Only when a student is close to and respects his or her instructor can he or she believe in and learn from the information and truths that the teacher has to offer. As Confucius once remarked, “If you are near to your teacher, you will believe in your path.” A knowledgeable teacher can only bring knowledge to life and help pupils comprehend the form and beauty of knowledge if they are passionate about what they do and devote their feelings to it.

(2) All teaching behaviors are done in a step-by-step manner according to the established design. The open classroom requires a breakthrough from these three elements to achieve the full openness of learning time, teaching space and learning content. The learning time extends from inside the classroom to outside the classroom; the teaching space extends from the classroom to the library, the laboratory, the factory floor, and the corporate office; and the teaching content extends from the textbook to all the information that can be drawn from and used in paper and electronic form. This requires teachers to play the role of “appetite” rather than “feeding” in the classroom. By “whetting the appetite,” the teacher is like introducing a sumptuous meal, telling students through vivid language and visual descriptions how delicious, nutritious, and beneficial each dish is to their health, making them salivate. After that, students will rush to the library and laboratory with great enthusiasm, and willingly make the meal through their own efforts.

(3) The knowledge classroom is transformed into a competence classroom. Bloom (Bloom) believes that the cognitive process is divided into six stages, which can be summarized into two levels: the lower level includes memory, understanding and application, and the higher level includes analysis, evaluation and creation. The knowledge classroom is where the teacher speaks about knowledge, the students learn about knowledge, and the test is on knowledge. Therefore, the knowledge classroom is only capable of achieving the lower order levels of cognition. The competence classroom is a classroom model in which the teacher carefully organizes and plans to stimulate students’ thinking activities, language expressions, and multi-directional interaction of independent and cooperative inquiry into unknown knowledge or the ability to argue for new knowledge in the context of classroom teaching and can ultimately achieve the purpose of education and teaching successfully. The ability classroom is the only way to form higher-order cognition. In the era of “mass entrepreneurship and innovation”, society needs talents with higher-order cognition, which requires that teaching activities should be changed from knowledge classroom to ability classroom.

(4) Change the emphasis on learning rather than thinking to a combination of learning and thinking. Learning is for inheritance, thinking is for innovation. Most of the traditional curricula emphasize memorization of knowledge rather than discernment, and greatly neglect the importance of thinking in learning. Confucius, the famous educator, warned of the consequences of such education, pointing out that “learning without thinking is reckless” and revealing the importance of thinking, saying with certainty that “learning from the past and knowing the new can be a teacher”. Knowledge is only a summary of the lessons learned in the past, and knowledge can only provide us with ideas for solving problems and discovering basic laws, but it cannot provide solutions to real problems. Albert Einstein once said that learning knowledge should be good at thinking, thinking, and thinking again, and I became a scientist by this method.

(5) The emphasis on teaching rather than learning changed to teaching master in learning. Focusing only on how well teachers teach and not on how well students learn is a disease formed under the traditional classroom teaching quality evaluation system, which currently exists in most universities. The result-oriented education concept believes that the purpose of teaching is to teach students to learn, so that students’ learning can reach a virtuous cycle of “learning to enjoy-learning to learn”. This is also in line with the educational thought of Ye Shengtao, a famous contemporary educator in China, who said that “teaching is to not teach”. In order to define “how well we teach”, we must first examine “how well we learn”. As Han Yu of the Tang dynasty wrote in the “teacher”: “Ancient scholars must have a teacher, the teacher, so to teach and solve problems. “Preach”, “teach” this is the teacher’s job, how well this job is done, depending on whether the “confusion” of students’ questions.

6. Conclusion

When building a supervisory classroom evaluation system, it is important to follow the right building codes, consider the new educational paradigm, and adjust the system as needed based on feedback from universities.

Strengthen the connotation of supervisor classroom evaluation and further the reform of the talent cultivation method with the OBE idea as the target. A strong policy, system, and organization guarantee, as well as collaborative efforts to educate the public, are in place. There are also clear and comprehensive quality evaluation standards, a scientific index system, reasonable evaluation methods, and an effective working mechanism of feedback and continuous improvement. Through ongoing advancements in supervisory practices, classroom evaluation and the “classroom revolution” support and advance one another to a higher-order classroom.

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