Research on the Optimization of Teachers' Teaching Quality Evaluation System of Secondary Colleges in Universities

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Abstract. On the basis of analyzing the existing problems of teachers' teaching quality evaluation system, the aim of teaching evaluation with the development of teachers and the improvement of teaching quality is put forward. Evaluation system is improved and includes teaching basis indexes, teaching process indexes and teaching effect indexes. Extension theory is introduced to evaluate the teaching quality comprehensively. The novel evaluation system provides a new reference for the evaluation of teachers' teaching quality.

Introduction

The quality of college education and teaching is the basis for the survival and development of colleges and universities, and continuously improvement of the teaching quality is the eternal theme of education and teaching. Colleges and universities establish the teaching quality monitoring and guarantee system to improve the quality of teaching [1, 2]. The evaluation of teachers' teaching quality is an important part of the teaching quality monitoring and guarantee system in colleges and universities. Some colleges and universities have introduced the methods of comprehensive evaluation of teachers' teaching quality, However, there are still many contradictions and problems in the practice process, which lead to the failure to assess the teaching quality, to promote the teaching quality optimization, to guide the development of teachers' teaching and motivate teachers to carry out teaching reform and other purposes through the evaluation of the quality of teachers' teaching [3, 4]. As the specific execution unit of the university teaching quality monitoring and guarantee system, the secondary college faces many challenges in carrying out the evaluation of teacher's teaching quality [5]. Therefore, establishing an effective evaluation system at this stage is of great theoretical and practical significance for perfecting the teaching quality guarantee system and improving the teaching quality.

Problems in Teaching Quality Evaluation System

Unclear Guiding Ideology of the Evaluation System

The evaluation of teachers' teaching quality is to judge the value of the teaching process and the result according to the teaching goal, and serve for the teaching decision [6], its purpose is to jointly find the problems in the classroom teaching through students, teachers and teaching supervision of three parties, and find out their shortcomings existing in the classroom teaching, and propose the corresponding solution strategy, to promote teachers to clear teaching effort direction, reflect and improve their teaching process and teaching effect, so as to improve teaching methods, improve their teaching level, and further improve teaching quality of the whole school. But for a long time, most colleges and universities lack the correct understanding of the guiding ideology of teaching quality evaluation. They only pursue the results of teachers' teaching evaluation unilaterally, ignoring the original purpose and significance of teaching quality evaluation. The purpose of evaluation becomes an examination of teachers' teaching quality. The evaluation is regarded as a means of assessing teachers, which distorts the original intention of teaching quality evaluation. The guiding ideology of
considering evaluation as assessment cannot promote teachers' teaching, and cause teachers to misinterpret the purpose of evaluation, and form unhealthy orientation among teachers and students.

**Imperfect Evaluation Index System**

Many colleges and universities only pay attention to teachers' classroom teaching process in the design of teaching quality evaluation index system, and evaluate teachers' teaching attitude, teaching content, teaching methods, language expression, classroom organization and classroom communication, while neglecting teachers' teaching effect [7]. The evaluation of teaching effect is not only the concentration of students' classroom attention, nor can it be measured only by the final grade, but more importantly, the students really learn practical knowledge and skills in class, or get enlightenment mentally, improve innovative thinking, in the long run, It can be reflected in the students' ability to learn to practice in their work after graduation, and to have the ability to find and solve problems independently. Therefore, the evaluation of teaching effect is actually hidden and persistent, which increases the difficulty of teaching effect evaluation, so that many teachers' teaching quality evaluation index systems do not solve the effective evaluation of teaching effect. There are various kinds of university courses, including general required courses, general education elective courses, basic subject courses, basic courses, core courses and so on. Because of the different nature of the course, there will be a great difference in the ideas of teachers, and it will also lead to the different teaching methods for different courses. Some universities try to build a universal teacher evaluation index system, but it is often difficult to be objective, scientific and fair in the process of determining specific evaluation contents and system standards and giving weight due to the constraints of subjective and objective conditions.

**Not-Satisfactory Effect of Teachers' Teaching Quality Evaluation**

Most colleges and universities adopt the teaching quality evaluation model based on student evaluation [9], but in the actual practice of student assessment, because of the psychological and ideological values of students are not yet mature, their law of education is limited to perceptual knowledge but not up to the rational level, and there is a big difference among the students' knowledge levels, so in the teaching evaluation for teachers it is often easy to evaluate teachers with their own preferences or needs, and not to give an objective and fair evaluation. And then it may lead to some teachers to cater to the students and influence the quality of teaching. Some universities are aware of the possible problems of students' evaluation of teaching, and try to carry out a diversified teaching evaluation mode. The faculty leaders, supervisors, peers and students should be integrated to evaluate teachers' teaching. Faculty leaders generally make certain evaluations of teachers' professional ethics, teaching situation, teaching archives specification, teaching and research ability, but this evaluation often lacks objective evaluation criteria. The office of academic affairs of some colleges and universities set up a steering group, mainly composed of a number of retired teachers, random listening to the spot checks of teachers in classroom teaching, but this evaluation is often given by the one or two classes performance of evaluation, it is inevitable that replacing the whole with part of the information and incomplete situation happen in the process. Moreover, the retired teachers have some thinking patterns in teaching style and teaching methods, the introduction of advanced foreign teaching methods for some young teachers cannot be fully recognized, so that the final evaluation result is invalid. Peer review has the characteristics of being professional, familiar, easy to organize and relatively objective. However, this evaluation has the interference of human factors such as human face, interest disputes, and other factors that are not in conformity with the facts. Therefore, many current teaching quality evaluations of teacher did not achieve the desired results.

In summary, the timely optimization of the teaching quality evaluation system enables teachers and students to evaluate the work correctly, so as to improve the quality of teaching, which is an urgent problem to be solved in the current teaching quality assurance system.
Optimization of Teaching Quality Evaluation System

Reshape the Evaluation Purpose

The ultimate goal of teacher's teaching quality evaluation is to generate correct guidance and motivation through effective teaching quality evaluation, and better mobilize the enthusiasm of teachers in teaching, so as to promote the reform of teaching contents and teaching methods, and then improve the teaching quality. The evaluation and selection function of teacher assessment should be taken into consideration, and the diagnosis and improvement function of evaluation should be given full play. We should not only pay attention to the terminal evaluation, but also attach importance to the process of evaluation, and change the past appraisal evaluation to the development evaluation. Teaching quality evaluation cannot be placed on the opposite of teachers, teacher should be taught the true meaning and purpose of teaching quality evaluation, so that teachers can understand and recognize that the fundamental purpose of teaching quality evaluation is to mobilize the enthusiasm of teachers, promote the development of teachers and improve teaching quality, deepen education and teaching reform, and then improve the quality of personnel training. On the one hand, through the feedback of teaching quality evaluation, teachers can understand their own advantages in teaching, face up to the deficiencies in teaching, make up for their deficiencies, improve their teaching status, update their teaching concepts, optimize the teaching process, improve their teaching behavior, and improve the quality of teaching. On the other hand, teachers can improve their professional qualities and professional qualities in process of improving the quality of classroom-teaching, they also promote the professional development of teachers so that their self-development ability can be improved.

Reconstruction of Multiple Evaluation Criteria

When constructing the teaching quality evaluation standard of teachers, colleges and universities generally adopt the method of student evaluation as the main method, combined with the methods of supervision group evaluation and management personnel evaluation. In order to achieve a better assessment effect, it is suggested to introduce the self-evaluation of teachers to change passivity into initiative, so as to enhance the teachers' ability to examine and summarize the self-teaching standards. According to the difference of the evaluation subjects, there are four kinds of forms, such as student assessment tables, teacher self-assessment form, supervision group evaluation form and management personnel evaluation table. Each evaluation form has different dimensions for teacher assessment. The student assessment sheet mainly focuses on the evaluation of teaching process and teaching effectiveness. The self-assessment table of the teacher focuses on the characteristics of teaching preparation and teaching methods. The evaluation table of the supervision group should apply supervision and inspection to the teaching effectiveness, teaching content, and teaching methods. Management personnel evaluation table focuses on the preparation, implementation and self-assessment of the teaching archives.

When making a student evaluation form, different evaluation indexes should be considered for different types of courses. For the engineering colleges, the main assessment of teachers should focus on the teaching quality of relevant professional courses, and should concentrate to reflect the professional characteristics and broaden the students' scientific understanding of vision and space to creative thinking, cultivate students' professional science and innovation literacy, exercise students' ability to analyze and solve problems, improve students' ability of practice and innovation. It will be a consideration that whether or not the teachers can combine the theory and application and whether or not it introduces frontier knowledge in the teaching process. Teachers can introduce multiple ways to assess learning outcomes substituting by traditional closed-book exams during course exams. When setting the evaluation indexes, we should mainly focus on the evaluation of students' ability, the application of teaching methods and the teaching effect. For the professional foundation course, due to the rigorous course structure, rich theoretical content and strong logicality, we should consider
whether the lecture is focused, the level is clear, the difficulty is clear and the teaching method is rich in the setting of the assessment indexes.

When setting the overall evaluation index system of teachers' teaching quality, we should select the evaluation indexes scientifically. This paper attempts to divide all the indexes into three parts: the teaching basic indexes, the teaching process indexes and the teaching effectiveness indexes. The teaching basic indexes include the degree of devotion of teachers to teaching, teachers' education and teaching ability, teachers' discipline knowledge literacy, teachers' scientific research ability and achievements. This kind of indexes are the basis for teaching work, which can be realized through self-assessment of the teacher, at the same time we can not ignore the review of teachers' self-assessment report. Teaching process indexes include the scientific teaching content, reasonable teaching methods, distinctive teaching characteristics, teaching content being consistent with student needs, teachers' compliance with teaching discipline and cultivating students' interest in learning and so on. Indexes of teaching effectiveness include improvement of students' scientific literacy, students’ professional knowledge acquisition and enhancement of their professional abilities and self-development abilities. By setting three categories of 13 indexes, the evaluation of teacher's teaching quality can be basically covered.

In the process of carrying out the student evaluation, students should be actively communicated and be informed the importance of the curriculum evaluation and how the evaluation results will be adopted, then it will lead students to pay more attention to completing the evaluation form. In the process of using students' evaluation, teachers should be involved, and the questions should be answered in response to students' comments.

**Applying New Analysis Method to Evaluate Teaching Quality Synthetically**

At present, we usually use mathematical analysis and intelligent algorithms in the evaluation of teachers' teaching quality in our country, such as analytic hierarchy process, gray relational theory, neural network and factor analysis, etc [10]. Due to the diversification of evaluation indexes and the incompatibility of index evaluation results, it is in line with the basic principles of extenics to solve the problem of contradictions. This paper adopts the extenics theory and methods, establishes the evaluation matter-element model of teaching quality through the correlation function and extension set. The assessed element is determined and classical domain and joint domain of the mass element are introduced, the weight coefficient and correlation degree is calculated, comprehensive correlation calculation of evaluation object is completed to find teaching quality evaluation grade values, which solves the problem of index weight setting and subjective problems, provides a novel way for the evaluation of University Teachers' teaching quality.

**Summary**

Based on the existing problems in the evaluation system of teachers' teaching quality in colleges and universities, this paper tries to optimize the indexes of teachers' teaching quality evaluation system and make use of extenics theory to evaluate teachers' teaching quality synthetically, and establish a set of scientific, reasonable, simple and practical evaluation system of teachers' teaching quality. The optimized teacher teaching quality evaluation system is an important part of the teaching quality monitoring system for the secondary college, which provides important support for the secondary college to carry out teachers' teaching quality evaluation, guarantee teachers' teaching development and improve the quality of personnel training.

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References


