Construction of Evaluation Index System of Classroom Teaching in the Universities

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Abstract. The current classroom teaching evaluation index system is too old and rigid to comply with the educational philosophy in the new era, and the traditional classroom teaching model has been unable to meet the demands of the new concept, especially in the context of building "Double Word-class " as the theme now. This paper combines the educational needs in the new era with the undergraduate teaching characteristics of research universities to reconstruct the undergraduate classroom teaching evaluation index system of research universities. Constructing the research-based undergraduate classroom teaching evaluation index system aims at guiding the transformation of the concept of teaching and learning of teachers and students in research universities, perfecting the teaching and learning methods, improving the quality of teaching and learning, and promoting the common development of teachers and students. Meanwhile, it also provides a method for scientifically constructing evaluation indicators of classroom teaching in research universities, which can adjust and formulate a new classroom teaching evaluation index system according to the teaching objectives and new teaching concepts.

1. Introduction

Developmental classroom teaching is based on promoting students' development. Unlike the traditional teaching, which only focuses on knowledge acquisition and skill training, it emphasizes the development of ability, interest and sentiment in the process of knowledge and skill learning, that is, the realization of the main development value of knowledge and skill learning. Practice shows that it is urgent to construct a scientific and reasonable evaluation index system of Developmental Classroom Teaching in order to realize the transformation of the fundamental purpose of classroom teaching and promote the deep-seated reform of classroom teaching. Current classroom teaching evaluation often stays in the dogmatic application of curriculum reform ideas, which cannot accurately, profoundly and comprehensively reflect the problems existing in classroom teaching. With the upgrading and optimization of classroom teaching evaluation tools, classroom teaching evaluation activities can be effectively guided and standardized to accurately explain and embody the advanced ideas of curriculum reform, so that it can directly and effectively lead and promote classroom teaching reform.

2. Defects of the Current Evaluation Index System of Developmental Classroom Teaching

2.1 Lack of logic and structure in evaluation index system

The evaluation index system of classroom teaching should be logical, self-consistent and well-structured. That is to say, the indicators and indicators are separated from each other and have substantive connections, which together constitute a complete and correct reflection of the specific angle of classroom teaching. However, there are still some gaps in the existing developmental classroom teaching evaluation index system in this respect: the overlap and overlap of indicators, the subordination of indicators to different conceptual frameworks, the lack of internal links between indicators and so on are relatively common.

2.2 The evaluation index system cannot reflect the essence of developmental teaching

Developmental teaching aims at promoting the development of students'quality, and integrates the learning of knowledge and skills with the development of quality. Researchers must deeply grasp the essence of this kind of teaching (that is, how to integrate the learning of knowledge and skills with the development of quality) and then transform it into a collection of concrete, observable and measurable indicators. Most of the evaluation points reflect the characteristics of "good teaching", but they do not reflect the essential characteristics of "developmental teaching". For example, the key point of "teaching objectives conform to curriculum standards and students'reality" is that teaching objectives "conform to the requirements of curriculum standards, including knowledge, ability, emotional attitudes and values; adapt to students' psychological characteristics and cognitive level, and pay attention to students'differences". In fact, this does not guarantee that the teaching objectives are developmental and are aimed at promoting students'development. (Zankov's development teaching theory holds that traditional teaching emphasizes the adaptation of students' current development level, but in fact falls behind students'development and does not promote students' development; this reminds us to simply emphasize that It may not be the developmental teaching goal that the teaching goal is suitable for the students'psychological characteristics and cognitive level.

3. The Construction of Evaluating Index System of Developmental Classroom Teaching

In view of the existing problems in the evaluation index system of Developmental Classroom teaching, we believe that a more scientific and rational index system must correctly reflect the objective structure of classroom teaching and the inherent law of developmental learning. According to the modern teaching process theory and constructivist learning psychology, we formulate the following ideas to construct the index system:

3.1 Changing the Idea of Evaluation Purpose and Enriching Evaluation Content

The purpose and content of classroom teaching quality evaluation play a guiding role. When setting the purpose of evaluation, we should incorporate the developmental concept on the basis of the traditional summing-up function, take the common development of teachers and students as the ultimate orientation, and always run through the concept of "promoting teaching by evaluation, learning by evaluation and teaching by mutual development", so as to make evaluation more scientific and rational. The content of classroom teaching quality evaluation is the most critical part in the whole evaluation process. It is the theoretical basis in the evaluation process. Only by reasonably stipulating the content of evaluation, can the final evaluation result be more scientific and truly promote the improvement of classroom teaching quality. When setting up the content of evaluation, we should pay attention to the comprehensiveness, rationality and innovation of the content, enrich its connotation on the basis of traditional evaluation content, and make it more comprehensive.

3.2 Constructing a Diversified Evaluation Subject

At present, the evaluation subject of each university tends to be diversified gradually, in which the student evaluation is the main body and the peer evaluation, teaching supervision and leading cadre evaluation are the supplement. However, In the process of evaluation, we often pay attention to student evaluation, take the result of student evaluation as the final basis, neglect the importance of other subjects, and even ignore the importance of teachers' self-evaluation. Modern educational concept requires that the criteria of teaching evaluation should be scientific, objective, accurate, fair and comprehensive, and that the subjects of classroom teaching quality evaluation should be more diversified. Developmental teaching evaluation concept clearly points out that classroom teaching quality evaluation is mainly to promote the development of teachers and improve their professional level and comprehensive quality. Therefore, colleges and universities should encourage teachers to actively participate in teaching evaluation, and form a pluralistic evaluation subject with students' evaluation and teachers' self-evaluation as the main body and peer evaluation, teaching supervision and evaluation of leading cadres as the auxiliary.

3.3 Optimizing the Organizational Mode and Implementation Process of Evaluation

In the process of implementing classroom teaching evaluation in domestic colleges and universities, the organizational mode is relatively single, that is, organizing peers, teaching supervisors and leaders to conduct random lectures and students'online evaluation at the end of term to evaluate classroom teaching. This way ignores the substantive connotation of teaching activities. Teaching is a complex and artistic activity. It can not be concluded solely through summative evaluation. We should adjust the current single form to make it more diversified.

4. Constructing the Evaluation Index System of Undergraduate Classroom Teaching

To construct the evaluation index system of undergraduate classroom teaching in research universities, it is necessary to construct the evaluation index system on the basis of the guidance of the teaching evaluation concept and the characteristics of undergraduate teaching in research universities.

Guided by the new teaching evaluation concept and the construction principle of indicators, based on the basic characteristics of undergraduate classroom teaching in research universities, with the aim of highlighting its research-oriented teaching, cultivating students' inquiry ability, innovation ability and autonomous learning ability, this paper takes Bloom's classification theory of teaching objectives (revised edition) as the design basis and theoretical support, including the classification and elaboration of knowledge and cognition, as well as the teaching methods and methods emphasized by constructivism theory which are helpful to cultivate students' outstanding qualities and abilities, we preliminarily formulate the theoretical framework of evaluation index system (As Table 1), which includes four first-level indicators, nine second-level indicators and 27 third-level indicators.

Table 1 Evaluation Index System of Classroom Teaching in the Universities

First-level Indicators	Second-level Indicators	Third-level Indicators
A1 Teaching preparation	B1 Teachers' teaching preparation	C1 Teachers prepare lessons carefully and fully, and give lectures freely without manuscripts.
		C2 Standardized and complete textbooks and reference books
		C3 With elegant appearance, natural teaching style and flexible application of body language
	B2 Students' preparation for class	C4 Students have relevant knowledge base
		C5 Homework and Pre-class Preview
	B3 Teaching Management and Facilities	C6 Adhere to the management system, teachers do not miss classes, do not be late, do not delay in class
		C7 Teaching facilities are well equipped
A2 Teaching Design	B4 Teaching Content	C8 Teaching content is enriched, highlighting key points and difficulties, and teaching plan is closely linked to the syllabus.
		C9 Teaching goal is clear, the content is accurate and correct.
		C10 The content of the course meets the requirements of the subject, and is properly combined with practice and relevant knowledge.
		C11 Appropriate used of foreign language vocabulary related to this course
		C12 Interdisciplinary and practical application
	B5 Teaching Method	C13 Teaching in accordance with students'aptitude conforms to students' cognitive law
		C14 Pay attention to heuristic teaching and guide students to think positively
		C15 The blackboard writing is neat, effective use of various teaching means and teaching media to improve the teaching effect
		C16 Scientific teaching organization, reasonable time allocation and strong classroom control ability
A3 Classroom Culture	B6 Exchange and interaction	C17 Teacher-student interaction: motivation, timely feedback and free discussion
		C18 Student-student interaction: free discussion and cooperation
	B7	C19 Mutual Respect: Teachers Respect Students, Students Respect Teachers
		C20 Harmony and Harmony: Friendship and Harmony

	Teacher-student relationship	C21 Equal cooperation: cooperative learning
A4 Teaching effectiveness	B8 Teaching Effect	C22 Good interaction between teachers and students, active classroom atmosphere
		C23 The lecture is appealing, can attract students'attention, and has good classroom discipline.
		C24 Students are full of emotions and motivated to learn
		C25 Can complete the teaching content and achieve the teaching purpose
	B9 Imparting knowledge and educating people	C26 Focus on tapping the ideological nature of textbooks to cultivate students' correct world outlook and outlook on life
		C27 Connecting with Teaching Materials, Implementing Ideological and Moral Education and Improving Students' Comprehensive Quality

5. Evaluation effect and summary

In this study, experts and students are taken as the main body of the evaluation of teachers' classroom teaching quality, but their emphasis on the evaluation of teachers' classroom teaching quality is different. Experts are more inclined to evaluate the organization of teachers' teaching content, the use of teaching methods and the mastery of basic teaching skills, while students are more inclined to evaluate teachers' teaching content, the cultivation of students' comprehensive ability and the imparting of learning methods. Based on the above two considerations, this study establishes the evaluation system of classroom teaching quality for experts (including peer experts and managers) and students respectively, which can not only meet the evaluation needs of different evaluation subjects, but also make a more comprehensive and objective evaluation of teachers' teaching quality.

The evaluation system of classroom teaching quality constructed by expert consultation and analytic hierarchy process has the characteristics of combination of quantitative and qualitative. The evaluation index basically covers the main factors affecting the quality of classroom teaching, and can measure the quality of teachers' classroom teaching in a multi-level and all-round way.

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