

A Preliminary Study on the Model of Separation of Teaching and Examination Across Schools -- The Example of City Institute, Dalian University of Technology

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Abstract: In the context of "lenient entry and strict exit" education, the implementation of the new mode of "separation of Cross School Teaching and examination" is not only conducive to standardizing the daily teaching work of private colleges and universities, promoting the teaching management reform and curriculum reform of private colleges and universities, but also conducive to the strict teaching process, strengthening teaching management, promoting teaching reform and improving teaching quality of private colleges and universities. Moreover, teachers in private colleges and universities teach comprehensively and students take random examinations, which is expected to greatly improve the enthusiasm and initiative of both sides of teaching. It also helps private colleges and universities form a good atmosphere of emphasizing education and learning, and teaching and learning grow together, and constantly improve the teaching quality of private colleges and universities.

1. Introduction

In order to implement the General Plan for Deepening Educational Evaluation Reform in the New Era and the spirit of the Conference on Undergraduate Teaching Reform in General Higher Education Schools in Liaoning Province to Promote High-Quality Development, to thoroughly implement the Implementation Opinions on Further Deepening Undergraduate Teaching Reform and Comprehensively Improving the Quality of Talents Cultivation (Liaoning Education Committee Education Tong [2020] No. 47), to implement the Notice on the Implementation Plan for Promoting the Separation of Teaching and Examinations in General Higher Education Institutions (Liaoning Provincial Education Department [2020] No. 36), and to systematically promote the reform of education and teaching evaluation and the construction of teaching, learning and examination styles in the College, City Institute, Dalian University of Technology will complete the separation of teaching and examinations for professional foundation courses in the spring and autumn semesters of 2022. This paper will propose a new model of separation of teaching and examinations, which is different from the current model of separation of teaching and examinations by "test bank".

2. Preliminary Ideas for a New Model of Inter-School Teaching-Examination Separation

In the context of "wide in and strict out" education, focusing on improving the education and teaching quality of private colleges and universities, based on the perspective of Application-oriented Undergraduate Colleges and Universities, with the new mode of separation of teaching and examination of "proposition outside the school and examination inside the school", by selecting a domestic first-class Application-oriented University--Dalian University and a domestic first-class private University--Dalian University of Finance and Economics as our brother colleges[1]. The City Institute, Dalian University of Technology is responsible for providing the syllabus, teaching plan and teaching materials used for the corresponding courses. Dalian University and Dalian University of Finance and Economics will undertake the task of proposing questions for the final examinations of the corresponding courses in accordance with the professional requirements of these courses[2].

It is planned that the final examinations of the course "Construction Materials" taken by the students of the 22nd grade Engineering Management and Engineering Costing majors in the first year of their studies will be appointed respectively[3]. After the results of the final examinations of Construction Materials are released, teachers from the three schools will analyse and compare the results of the two sets of examinations, and then adjust and summarise the teaching programmes of the corresponding courses in a targeted manner. In order to achieve the goal of "real" teaching for teachers, "real" learning for students and "real" examinations for students. In order to ensure the objectivity and reasonableness of students' results, serious teaching management, and scientific evaluation of teachers' teaching effects, we explore the mode of operation and implementation of the new model of "separation of teaching and examination across schools" in the professional foundation courses of construction and engineering[4].

3. Specific Implementation Plan for the New Model of Cross-Campus Teaching-Examination Separation

3.1 Pre-Entry Preparation Phase for new Students

First of all, we looked up and read the current situation of the separation of teaching and examinations at home and abroad, related literature and policies, organized our lecturers of Construction Materials to understand and study in depth the teaching requirements and syllabus and examination requirements and syllabus of Construction Materials course, and organized our lecturers in school to discuss the teaching research of Construction Materials course. A solid theoretical foundation was laid for the initial development of the separation of teaching and examination scheme for the course "Construction Materials".

Secondly, a questionnaire survey on the separation of teaching and examinations of Construction Materials was conducted for about 270 students from nine classes of Engineering Management and Engineering Costing majors in Grades 19, 20 and 21 to understand the problems encountered by previous students in studying Construction Materials, their opinions on teachers' teaching and examinations as well as their suggestions on the implementation of the separation of teaching and examinations. This will provide valid and objective reference data for the initial development of the separation of teaching and examinations in Construction Materials[5].

Finally, the College will establish contact with the teachers teaching "Construction Materials" in the College of Engineering and Architecture, Dalian University and the School of Management, Dalian University of Finance and Economics, and organise a meeting and discussion among the teachers teaching Construction Materials in the three schools to gain a deeper understanding of the current situation of teaching Construction Materials in Dalian University and Dalian University of

Finance and Economics. The teachers of the three schools exchanged basic information on the teaching materials used in the course, the lecture hours, the teaching schedule, the content and form of after-school assignments, the scope and difficulty of the final examination questions, the passing rate and the merit rate etc. And jointly formulated the teaching plan for the new mode of "separation of teaching and examination" of Construction Materials in City Institute, Dalian University of Technology. The three schools will also work out the syllabus of the final examination of the course "Construction Materials" based on the teaching plan and the scope, focus, differentiation and difficulty of the final examination of the three schools.

3.2 Programme Practice Phase

Firstly, the lecturers of the course "Construction Materials" of City Institute, Dalian University of Technology conducted lectures, assigned and corrected assignments after class, and answered questions after class for the students of the 22 grade engineering management and engineering cost majors according to the teaching plan formulated before the new students entered the university.

Secondly, the lecturers of Construction Materials from the College of Engineering and Architecture, Dalian University and the School of Management, Dalian University of Finance and Economics will, according to the pre-determined examination syllabus, set the final examination paper for the course of Construction Materials of City Institute, Dalian University of Technology respectively. Exam questions include, but are not limited to, 10 multiple choice questions, 10 judgement questions, 15 fill-in-the-blank questions, 5 terminology explanations, 5 short answer questions and 2 calculation questions. The examinations covered basic properties of materials, inorganic aerodynamic cementitious materials, cement and cement concrete, building mortar and steel, wood, wall materials, waterproofing materials, thermal insulation materials and sound-absorbing materials.

Finally, the examination paper appointed by the teachers of the College of Engineering and Architecture, Dalian University was the final examination paper of the course "Construction Materials" for the students of 22 grade engineering management of City Institute, Dalian University of Technology; the examination paper appointed by the teachers of the School of Management, Dalian University of Finance and Economics was the final examination paper of the course "Construction Materials" for the students of 22 grade engineering cost. And through the form of questionnaires, the students of the two majors timely understood the evaluation and suggestions on the teaching, assessment and other related aspects of the course "Construction Materials" after the examination. To provide a reasonable reference for the next stage of analysis.

3.3 Curriculum Education Analysis Summary Phase

The lecturers of City Institute, Dalian University of Technology, Dalian University and Dalian University of Finance and Economics were organised to analyse the scope, difficulty and differentiation of the questions in the final examination of the course "Construction Materials" in City Institute, Dalian University of Technology, the problems encountered by students in the course of listening to the lectures and their comments and suggestions on teaching and assessment after the examination, as well as the pass and merit rates of the final examination. In this way, the similarities and differences between Dalian University, a public university, and Dalian University of Finance and Economics, a private university, in terms of difficulty, focus, differentiation, strengths and weaknesses in the assessment of the course "Construction Materials" are compared. On this basis, the final teaching plan of the course "Construction Materials" of City Institute, Dalian University of Technology under the new mode of "separation of teaching and examination across universities" was further revised and adjusted. In order to ensure the objectivity and rationality of students'

performance, serious teaching management and scientific evaluation of teachers' teaching effect, the operation mode and implementation method of the "separation of teaching and examination" in the basic course of construction industry under the new model are explored.

4. Features and Innovations of the New Model of Inter-School Teaching-Examination Separation

Due to time constraints, there is a lack of data to support the impact of the separation of teaching and examinations on teaching quality, and the application of the separation of teaching and examinations in China is relatively short.

The new model of "separation of teaching and examination" in City Institute, Dalian University of Technology is based on the example of the separation of teaching and examination for the final course "Construction Materials", which is a basic course in construction and engineering at City Institute, Dalian University of Technology, and differs from the existing practice of separation of teaching and examination by using a test bank. The question setting team will invite teachers of construction and engineering from Dalian University, one of the leading universities in China, and Dalian University of Finance and Economics, one of the leading private universities in China, to set questions for the final examination of the course "Construction Materials" in City Institute, Dalian University of Technology, taking the initiative to benchmark with the leading universities in China. We actively studied and learned the syllabus, teaching requirements, assessment standards and marking requirements of the first-class domestic public universities and the first-class domestic private universities, and tried a new mode of "separating teaching and examination" by "cross-university assignment".

Through the analysis and comparison of the scores of the two sets of examination papers, the three universities jointly discussed and formulated the teaching plan of Construction Materials of City Institute, Dalian University of Technology, and gradually explored and researched a new path of separation of teaching and examination based on "questions appointed outside the university and examined within the university", which is suitable for private colleges and universities of construction and engineering. Under the spirit of adhering to the principle of "base on the foundation" and promoting the "four returns", the university will accelerate the construction of high-level private undergraduate education with Chinese characteristics, and help cultivate high-quality applied and compound senior talents to serve the socialist modernization of the motherland.

Moreover, now the new mode of "Cross School" separation of teaching and examination is still in its infancy in China, and most colleges and universities that adopt the new mode of "Cross School" separation of teaching and examination usually choose colleges and universities with the same school running body and higher teaching and other strength than their own, such as Kunming University of technology as a research-oriented public university, The final examination paper proposition of the course of "separation of Cross University Teaching and examination" is undertaken by domestic double first-class research public universities such as Dalian University of technology and Huazhong University of science and technology. The new mode of "Cross School separation of teaching and examination" of the City Institute, Dalian University of technology will not be limited to the main universities of the same kind. Not only did Dalian University of Finance and economics, a first-class private university of the same kind in China, be selected to undertake the assignment of final examination papers for the separation of teaching and examination courses, but also chose Dalian University, a first-class application-oriented public university in China, to undertake the assignment of final examination papers for the separation of teaching and examination courses, On the basis of "Cross School", we should carry out the innovation of the

separation mode of teaching and examination of "cross school main body", so as to further deepen the reform of the separation of teaching and examination.

5. The Significance of the new Model of Inter-School Teaching-Examination Separation

5.1 Changing the Poor Teaching style of Lecturers

Under the new model of "inter-university teaching-examination separation", the textbook used for the course is only the basis for the examination questions, but the examination questions are not entirely dependent on the textbook. As a result, teachers will not be able to rely solely on the textbook to deliver the course content, but will need to be aware of and constantly learn about the latest knowledge in the course and its field of study, and to deliver the course content in accordance with the teaching objectives and requirements. In order to change the way in which many teachers, for their own benefit, put most of their efforts into declaring national, provincial, municipal and school-level projects and writing and publishing papers, treat the syllabus casually and do not teach in accordance with the syllabus, even to the extent of lowering the difficulty of the examination papers in order to avoid students scoring low marks in the assessment of teaching quality and to cope with the teaching management committee of the school. They also give students a range of examinations and suggest the key points of the papers to ensure that they score to their satisfaction in the examinations.

And in this mode, it can not only stimulate the potential of front-line teachers, but also promote the benign competition between front-line teachers. While increasing the credibility of evaluation, teaching can be measured reasonably and objectively. So as to help the teaching direction change in a benign direction.

5.2 Reversing the Poor Learning and Examination Style of Students Listening to Lectures

By implementing the new model of "cross-universities teaching-examination separation", students will understand that their misconceptions of "sharpening the spear on the spot" and playing the "emotion card" with lecturers to obtain a more detailed scope of examinations are no longer valid. There is no place for more detailed examinations. To excel in a course, students need to review the curriculum in a practical and systematic way, and they also need to read a wide range of literature outside the classroom.

The system is designed to eliminate all sorts of misconceptions about learning and exams, to stop students from being overly dependent on their lecturers, to take an active role in learning and consolidating what they have learned, and to give students who have studied hard a real sense of the credibility of "God rewards hard work" and to free their lecturers from the so-called human problems. This ensures the objectivity and fairness of the exam results. This will help to reverse the poor learning and examination style of the students who attend the classes.

5.3 Addressing Non-Objectivity in Teaching Assessment

The assessment mode of the integration of teaching and examination is that teachers make independent propositions. Although this form of assessment also has the necessary effect of self-examination, teachers' subjective factors will inevitably cause the randomness of evaluation. Because of the differences in the proposition level of different teachers in various schools, as well as their teaching level, attitude and educational background, there will inevitably be great differences in the passing rate and excellent rate of the final examination papers of the courses produced by different teachers. That is, due to this actual subjective factor, the teaching

management department of the school will have non objectivity in the teaching evaluation, which is not conducive to the teaching management department to analyze the teaching situation and evaluate the teaching quality.

Based on the implementation of the new mode of "separation of teaching and examination across colleges", the validity, credibility, difficulty and discrimination of the test paper can be well combined, which not only unifies the standardized test paper, but also provides direct and effective data for teaching management.

6. Conclusion

Based on the new model of "separation of teaching and examinations across schools", on the one hand, the teaching enthusiasm of our teachers and the learning enthusiasm of our students will be improved, and a new way to solve the problem of poor learning and examination styles that commonly exist in private universities will be explored. On the other hand, it will help the university to rationalize the teaching-examination system, improve the quality of teaching, establish a perfect assessment system and feedback mechanism for students, promote the positive interaction between teachers and students, and ensure the effective and scientific operation of the university's teaching-examination system.

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