

Reform and Practice of the Training Mode of Large Category Enrollment Based on Introduction Course

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Abstract. On the basis of study of teaching reform of introduction to mechanics in the process of machinery categories enrollment training, this paper first gathered the questionnaires and disposed the data of teaching course, then researched in the way of data mining, finally the basic course teaching behavior patterns before management distribution was studied. In this paper, the positive function of the introduction teachers who amount to “diversion work tutor” was first demonstrated, then in the formulation and revision of curriculum program and during professionally educating to the students, the significance and guiding role of using course construction was elaborated in management innovation of categories cultivation mode, instruction of mechanical foundation courses and guidance of teaching behavior. This paper studied the teaching reform practice of introduction course in categories of cultivation and analyzed current development needs of higher education personnel training, in order to find the basis of relatively perfect and mature system of categories of training.

1. Introduction

Categories of admissions, or recruiting students of heavy caliber, whose most fundamental purpose is to cultivate more innovative talents, was restricted by various conditions both in development and implementation for its incipient and immaturity. The key of categories of admissions innovation lies in the complete set installment between training scheme and disciplinary introduction course system. It is essential to overall set the professional layout, reasonably adjust the disciplinary structure, and scientifically build the disciplinary framework with clear recognition to the orientation of school running and talent training [1]. To transfer the traditional training mode into categories of training calls for uncharted reconstructing with integrative consideration of every major category characteristics. It must call for improvement of teaching management operating mechanism through reforming *Introduction Course* and will inevitably lead to the deconstruction of original professional course system [2].

The mode of categories of cultivation intensively requires the school replace the current rigid teaching management with a more flexible one. By actively carrying out the credit system which regards students' autonomous choice as a core, gradually implementing the student-centered teachers-led introduction traction system, suggestively amending the regulation of school roll management based on flexible educational system and formulating selective or minor system, a set of teaching management operation mechanism adapted to categories of cultivation was finally established [3]. Therefore, during teaching and managing we should actively create conditions for teaching reform, accumulate experience inch by inch. To achieve the ultimate goal of teaching management is to cultivate high-quality compound talents with both creative ability and strain capacity to contribute to the harmonious development of economy and society [4].

2. Problems in the Enrollment and Cultivation of Large Category

(1) When training programs and teaching syllabus (teaching content) were developed, the mode was customarily set in the way of providing major field first and aggregating second. During aggregating and analyzing, the following shortages were found: Firstly, the introduction to mechanical engineering existed many repetitions and the emphasis is not prominent. Secondly, each major emphasized on professional characteristics separately while the interaction and correlation of every major was dimmed.

(2) In the process of teaching, the form "teaching by turns" should be used. In the process of practice, anyhow, the forms of teaching tasks required by the database were hardly achieved rigorously according to the curriculum arrangement of educational administration system. What we should do was assigned the task to a single person and set the schedule according to the class and the speakers; all these resulted in obvious issues such as management inconvenience and workload accounting trouble.

(3) In the teaching process, teaching effect is not good for the same class when rotating teachers by credit hours. Furthermore, under the above teaching form, there was no unified examination form after each course, resulted in cumbersome entry process.

(4) In annual Categories of Admissions, the new majors set up in second school year added teaching content into the original majors in the first year, which made the original teaching form not applicable.

(5) Course guidance is strenuous and various. Before distribution, Categories of Cultivation can only rely on staff concerning with students to set up the management in accordance with the class. No professional staff participated in the management made the students confused about the distribution and the future learning.

3. Questionnaire Survey Data Analysis

In the questionnaire survey we sent out 343 questionnaires, eventually got 23 invalid and 320 valid questionnaires. We have made the data analysis, as shown in Fig. 1-5.

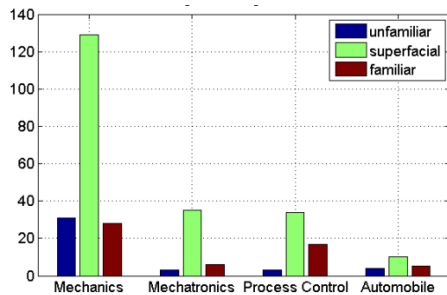


Fig. 1 Understanding to Categories of Admission

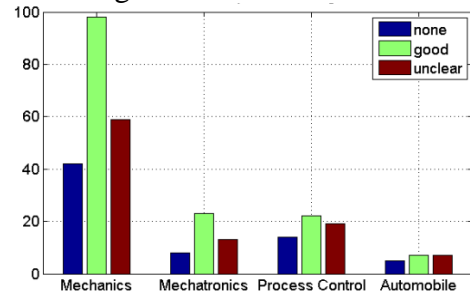


Fig. 2 The help to learning

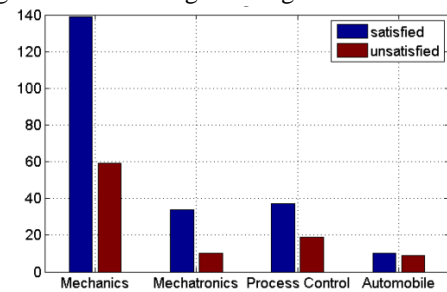


Fig. 3 Satisfaction to categories of admissions

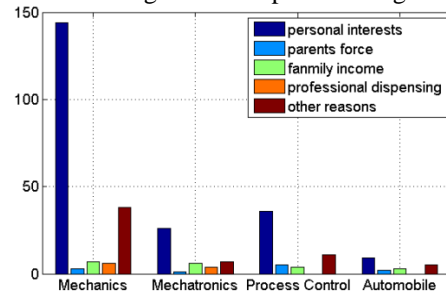


Fig. 4 Reasons for choosing major

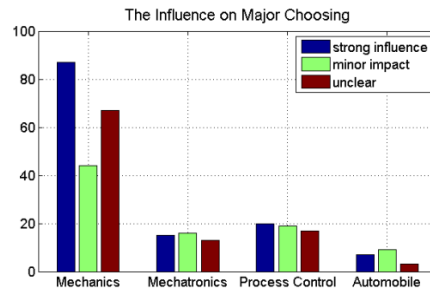


Fig. 5 The influence on major choosing

According to the analysis diagram, we knew that primarily, the majority of students knew little about categories of admissions and there existed cognitive errors. Secondly, most people believed it was benefit for study and were satisfied with the training mode of our practice. Finally, they thought it could guide them to focus based on knowledge learning and enhance their competitiveness and was conducive to their cultivation and development. Establishing innovative training based on *Introduction Course* emerged as a new mode in which over 80% students selected major by their personal interests. The students, after a period of study and life at school had a more profound understanding of majors set and their research area, thus, the majors matched their career planning were finally confirmed under the consideration of their own academic records and hobbies.

4. Innovation Mode of the Large Category Cultivation Based on the Introduction Course

4.1 To Guide Teaching Reform Using Data and Practice.

The following content and innovative methods were adopted based on the material and experience in analyzing and solving the above problems. Course establishment though the study emphasized on, especially about the mode of Categories of Cultivation and its relative distribution, our teaching research had the practical significance and the application of the guidance in the other field of Categories of Cultivation.

(1) Research on teaching mode and teaching content. What we changed in Categories of Admissions were widely involving aspects, such as education concept, personnel training mode, teaching material construction and teaching operation management, instead of the simple admission mode. Therefore, it is needed to strengthen the study on teaching mode and corresponding management. The Introduction Course is the connecting link between the preceding and the following. Through defining the summary of course content, the basic teaching method of mechanical category was indicated, while the teaching mode and corresponding management after distribution, along with teachers' teaching behaviors and practices were guided as well. Training mode needs continuous exploration and practice, so we creatively implemented the teaching mode in which college and professional director undertook some duties in Introduction Course respectively, division of labor as follows: College dean should explain the mechanical engineering and the requirements in distribution of the department, the professional director should explain the professional characteristics and courses and other aspects in teaching process, the college should then uniformly publish assessment requirements. The teaching and research office, relatively, should enter the classroom to explain the requirements and collect the papers or assignments and then distribute them to teachers based on the number tasks to give the results and finish the result input.

(2) Integration and deployment of existing teachers and teaching resources calls for the integrant promotion of teaching content construction reform. Implementation of the measures covering the construction of teaching materials, the selection of information, reference books, the preparation of courseware and other aspects of research and practice were also significant. School management together with teaching and research office first discussed and changed the teaching management model, adopted the model in which director of teaching research and major director taught along the class (up to 16 credit hours), then made a unified schedule on the teaching calendar, teaching content (lecture notes, calendar) and teaching courseware, to put the reform ideas of "Categories of Cultivation" into practice.

(3) To direct the teachers into new fields of teaching reform research, and adjust the research and practice of educational administration management. Teaching reform is the core of the reform of talent training mode, therefore, in the implementation of "Categories of Cultivation, distribution in training" personnel training mode, own characteristics, the teachers strength, region development and positioning goal should be considered as a whole, the shunt and shunt after teaching content reform become all the teachers need to study the main content. The reform of the teaching content before and after the distribution has become the main content of all kinds of teaching researches. To treat training students' ability, broadening their horizons, strengthening the "two basics" and improving the quality of students as the foundation, the school works were assisted and high level and advantageous teachers' educational reform was directed [5-6].

(4) Course counseling problems: Before distribution, Categories of Cultivation can only rely on staff concerning with students to set up the management in accordance with the class. The research was about teaching form that the director of teaching research hosted counseling course, it was an exploratory work, the work form and method was creative and with practicability [7].

(5) Scientific professional framework establishment. Establishment of the curriculum system in mechanical training programs and professional introduction was studied. Under the premise of analyzing their own professional advantages, teaching work, characteristics and actual situation of teaching resources, to promote the formulation and revision of the Categories of Cultivation, to establish the new professional framework which professional training mode was coordinated with new teachers' teaching content and the old, were conducive to the combination of traditional courses with the new professional integration, and were also benefit to the discipline echelon construction.

4.2 Innovation Analysis on Guiding Teaching Reform.

To fulfill the reconstruction of curriculum system should take Introduction Course to Categories of Admission as the point of penetration. To study the concrete implementation plan of general design of talent cultivation should combine the science and modernity with the respect of students' personality, and permeate multiple levels throughout the curriculum. By achieving the overall optimization of the curriculum system through the integration of new educational ideas, the creative Categories of Cultivation process was finally carried out.

(1) To renew and take the training process supervision and service into practice in Categories of Admission on mechanical engineering and to explore the construction of the introduction course of mechanics in the way of "fostering according need".

(2) To put the Introduction Course to Categories of Admission on mechanical engineering into practice, to urge them to improve course construction and to promote the development of subject construction and students' personality. To achieve respect for students' personality development and students' voluntary application based on the distribution training for the pursuit of training mode update.

(3) To explore the rationality of the professional layout and put it into practice, to research and improve the content of the course and to improve the utilization of educational resources.

(4) To strengthen the communication with students in the process of course guidance and teaching process supervision. To ensure the students find appropriate research field according to the inimitable "Categories of Cultivation, distribution training" mode.

(5) To urge teachers perfect their knowledge structure, to promote the adjustment of old professional teachers and to improve education-teaching level, which is good for teachers' personal development.

(6) To assist in the establishment of innovative student management mode to adapt to the Categories of Admission. To provide first-hand information, feasible suggestions and enforceable plans which as a reference to our country's further optimization in the process of implementing Categories of Admission policy.

5. Conclusion

The goal of the research lies in the service for talent training in Categories of Admission. Based on major and hot problems and difficulties needed to resolve, steps such as reforming the teaching mode, allocating teachers and adjusting the course content are taken. The core lies in improving the quality of curriculum construction. The breakthrough lies in curriculum and supervision reform and in the innovation of the Categories of Training and teaching mechanism. Implementing the strategy of quintessential course, the teaching management mechanism meets the development and orientation of talent training in Categories of Training will be established and improved progressively. To put major introduction course construction and training model reform of Categories of Cultivation into practice has important research significance and the practice application prospect with wide range of benefits and nature advantages in research and practical.

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