

Exploration on Course Construction and Teaching Reform of Public Elective Courses in Agricultural Universities

—Taking Beijing University of Agriculture for Example

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Abstract—To strengthen the course construction and improve the quality of public elective courses, Beijing University of Agriculture has explored the course construction and teaching reform of public elective courses in view of the general problems existing in public elective courses in agricultural universities. The methods are as follows: building a healthy and thorough management mechanism of public elective courses; strengthening curriculum construction and building a public elective course system; reinforcing course management and improving the quality of public elective courses; establishing the teaching quality management and monitoring system of public elective courses, etc.. The preliminary results have been achieved, which can be used as reference for the construction and teaching reform of public elective courses in local agricultural universities.

Keywords—agricultural universities; public elective courses; course construction; teaching reform

Public elective course, as a significant way to enhance students' comprehensive qualities including cultural and scientific qualities, literary and artistic accomplishment, plays an important role in the management system of credit system of agricultural universities, which meets students' diversified learning need and advocate students' initiative study. Under the credit system, agricultural universities require a large number of high-quality public elective courses for students to choose. However, under the development and influence of industry characteristics, agricultural universities pay more attention to the development of agriculture, forestry, science and technology, etc. The neglect of construction and development of humanities and social disciplines has led to problems such as insufficient number of public elective courses and low quality on humanities.[1]

I. ANALYSIS ON THE PROBLEMS EXISTING IN THE PUBLIC ELECTIVE COURSES IN AGRICULTURAL UNIVERSITIES

A. Random curriculum and lack of systematic planning

Most of the public elective courses lack overall planning, set up according to the teacher's professional expertise and personal interests. The professional structure of agricultural universities is biased towards agricultural science, and the basic courses are relatively single and scarce compared with

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comprehensive universities, thus the public elective courses have relatively insufficient number, uneven course types, more courses about agriculture, forestry, science and engineering rather than humanities and arts. Students' need for course selection can't be fulfilled. In addition, some elective courses in science and engineering are too specialized, and the difficulty is higher than that in the humanities and arts courses, which might leads to canceling these courses due to students deficiency, so that it is difficult for universities to improve the students' comprehensive quality, optimize their knowledge structure and broaden their horizons through public elective courses.

B. Chaotic curriculum management and lack of quality control

The majority of public elective courses start in the evening or on weekends, which is the break time for the teaching administrative department, making it difficult to arrange teaching supervisors to do class assessment by taking lectures and other methods. Therefore, the teaching monitoring of public elective courses is undermanned.[2]Lack of incentives for elective courses let some teachers with high professional titles quite unmotivated, so mainly young teachers or executives with low professional titles are giving classes; since the students come from all classes of the university, the classroom organization is loose, and there is not enough communication between teachers and students; there is a lack of uniform standards for teaching quality evaluation, which is often reflected in the number of students who selected courses. Some conscientious and responsible teachers will be considered too strict by the students, and the credits are too difficult to get thus will be abandoned by the students during the course selection; the assessment method is random and simple, usually an open-book exam or a paper or research report to complete the exam requirements; the teaching mode, teaching administration, monitoring and guarantee system of public elective courses are not perfect.

C. Teachers and students do not attach importance to it, and the teaching quality is low.

Some teachers believe that the results of public elective courses have little to do with students' evaluation or

employment. Hence, they don't pay much attention to the teaching process, have inadequate teaching input, do not prepare lessons carefully, leading to the outdated teaching mode and backward teaching content; the classroom requirements for public elective courses are reduced, attendance is not strict, and the fear that the management is too strict to affect the enthusiasm of the next students is there. Students do not have instruction during class selection and often choose courses based on its name or the introduction of the senior student.[3]The fact that students do not attach importance to these courses, often late or absent for class and lack of learning initiative makes the low class attendance rate, low concentration, terrible classroom discipline and poor teaching quality of public elective courses, letting the teaching objective hard to achieve.[4]

II. EXPLORATION ON COURSE CONSTRUCTION AND TEACHING REFORM OF PUBLIC ELECTIVE COURSES IN BEIJING UNIVERSITY OF AGRICULTURE

Beijing University of Agriculture has attached great importance to the cultivation of students' comprehensive quality. In order to avoid the general problems in the construction and administration of public elective courses, it has actively taken measures to explore the construction of public elective courses and teaching reform.

A. *Improving and perfecting the management mechanism of public elective courses*

First of all, the nature and status of public elective courses in the talents cultivation will be clarified through the revision of the training program. The revised training plan in 2016 strengthened the curriculum of public elective courses and divided the public elective courses into 8 models: 1. innovation and entrepreneurship; 2. mental health; 3. agriculture and forestry; 4. science and technology; 5. economics; 6. management; 7. grammar; 8. choice category. All students are required to take at least 1.5 credits each in model 1 and 2. Model 3 to 7 are interdisciplinary electives. Agriculture and forestry majors should take at least 1.5 credits each in model 4, 5, 6, and 7, while the majors in science and engineering are supposed to take at least 1.5 credits in model 3, 5, 6 and 7, the economic management majors have to take at least 1.5 credits in model 3, 4 and 7, and grammar majors have got to take at least 1.5 credits in model 3, 4, 5 and 6. In the public elective courses, the credits are limited to 7.5-9, and the remaining 6-7.5 credits are optional credits. It is also clear that in the theory course, the credit ratio of compulsory course to elective course is 0.65 to 0.35.

Secondly, the management system of public elective courses has been established and improved. According to the new training program, the "Measures for the Construction and Management of Public Elective Courses of Beijing University of Agriculture" was composed, which clarified the curriculum classification and credit arrangement of the public elective courses, the principle of opening courses, the requirements for opening and approval, and the requirements for course selection and assessment. It is stipulated that teachers who set up public elective courses should have the professional background or approved skills. They can only apply for the

course request after passing the test arranged by the school, which encourages teachers with senior professional titles to open public elective courses, and optimize the monitoring and management of these courses. The Academic Affairs Office coordinates the teaching supervision with students' monitoring and evaluation of the public elective courses, and the institute gives full play to the professional and disciplinary advantages to administrate the public elective courses. The management system defines the responsibilities of the Academic Affairs Office, the college, the director of the curriculum as well as the teacher, and establishes the management system of public elective courses with the characteristics of our university.

B. *Strengthening course construction and building a public elective course system*

1) *Scientific research and demonstration to optimize the course structure of public elective courses*

In order to meet the needs of the application-oriented agricultural and forestry personnel training objectives of our school with "high comprehensive quality and reasonable knowledge structure", Beijing University of Agriculture has organized various departments, academic affairs offices, teaching supervisors and outside experts to conduct scientific demonstration and systematic planning for public elective courses to set up complete disciplines, reasonable curriculum structure, and make it suitable for the public elective course system of agricultural universities. In terms of proportion, the public elective courses cover innovative entrepreneurship, mental health, agriculture and forestry, science and engineering, economics, management, and grammar. At the same time, introductory and general-purpose curricula are offered. There will be dynamically monitoring and evaluation about public elective courses each semester to adjust and improve the curriculum system. In the end, a course system with plenty of well-structured public elective course has been constructed through great efforts.

2) *Excavating teaching resources and improving the quality of Public elective courses*

Beijing University of Agriculture has actively excavated teaching resources in the light of reality, and encouraged teachers of high-level and high-ranking titles to open public elective courses by raising incentives for public electives, enhancing teaching funds, and regarding teaching performance of public elective courses as an important basis for professional title evaluation or assessment. In addition, the university hired retired professors or experts from a certain discipline or major to return to campus to open a public elective course, or hire teachers from other schools, renowned professors and experts. For teachers with heavy scientific research tasks and overwhelming teaching pressure, it is acceptable for several teachers to open a joint public elective course through special lectures and joint sessions in the form of ensuring the complete structure of the curriculum.[5]

3) *Opening network public elective courses and introducing the generalization courses by Chaoxingerya*

Beijing University of Agriculture has also made full use of network resources and encouraged teachers to open online public elective courses. It has provided special funds for

teachers in the network public elective course, and invited specialists to give training and technical guidance to teachers. Through the introduction of the Chaoxingerya generalization courses, the integration of high-quality online course resources and the school's curriculum will be realized to make up for the weakness of the teachers' elective strength and teaching resources in our school.[6]Through the investigation of the students in Erya generalization courses, it is possible to understand the learning needs and characteristics of the students, select the proper Erya generalization courses which is suitable for the characteristics of our school, and equip each course with a tutor to answer questions for students.

C. Reinforcing course management and improving the quality of public elective courses

1) Standardizing the examination and approval system for public elections strictly

For the newly opened elective courses, teachers are required to fill in the "Approval Form for the New Opening of Public Elective Courses" and arrange trial lectures by the colleges to which the courses belong, so as to ensure the scientificity and rigor of the new public elective courses. Every teacher who's in charge of public elective courses are required to fill in the "Evaluation form of Public Elective Courses Resources of Beijing University of Agriculture", then submitting standardized syllabus, course description, teaching materials and reference materials, and finally reporting themselves to the Academic Affairs Office for and approval after passing the initial evaluation of the college.

2) Guiding students to choose the right course and improving their pertinence

Three weeks before each semester, the significance and management system of public elective courses are widely publicized through information platform, billboard and other channels to guide students to choose courses correctly and avoid aimlessness and utilitarianism. According to the students' majors, specialties and career planning, counselors and head teachers will assist students to improve their quality and enhance their employment competitiveness by selecting courses in an all-round way. As for each elective course, its course description, teaching content, syllabus, etc. will be presented by the college in details so that students are able to choose the appropriate course according to their own strengths and interests. The first 1-2 weeks of each semester is the audition stage, which help students conduct a second round of course selection, and choose the course that is truly suitable for them through the withdrawal of by-election.

3) Focusing on class teaching quality and enhancing the enthusiasm of teachers and students to participate in the teaching of public elective courses

On the one hand, the school strictly coaches and regulates the teaching management. Each course should have a feasible teaching plan and syllabus, and supervision experts or peers arranged to visit the class in order to urge teachers to improve teaching quality, and strictly prohibit teachers from reducing teaching difficulty or teaching content; stick to strict assessment system, teachers are encouraged to apply flexible and diverse examination methods, put an end to going easy on

students or additional scores, ensure the scientificity and rationality of the evaluation by regarding attendance, classroom assignments, homework assignments, group discussion results, research reports, essays, and usual test scores as part of the overall results; the school has strictly enforced teaching discipline, eradicated the suspension or switch of classes without authorization, and seriously dealt with those who are late or absent from class according to teaching accidents.

On the other hand, strict student attendance system should be strengthened. Once chosen, the course can't be adjusted at students' will, and they should listen carefully, not being late, leaving early or absent from class. Students' test qualification will be canceled for more than one-third of unexcused absences. Only by attending to class carefully, completing the assignments and tests on time and passing the final exam can they get credits. In order to ensure the students' punctual attendance, the Student Affairs Department, the Academic Affairs Office, the Student Union and the course opening department shall conduct irregular spot checks on the attendance of public elective courses.

D. Enhancing course construction and deepening teaching reform

1) Set up special funds to support the construction of public elective courses.

The establishment of public elective courses teaching research projects and seminars are able to guide teachers to conduct research on the curriculum construction and teaching reform of public elective courses. A reasonable public elective courses system is constructed on the analysis of students' needs and characteristics, and the goal of personnel training in the school. Provided financial support, teachers are encouraged to compile teaching materials and make online curriculum resources. Specialists are organized to regularly review the public elective courses, evaluate the high-quality university wide courses, and funding is set up for the construction of high-quality courses. Meanwhile, teacher's performance of public elective courses is regarded as an important basis for evaluating the promotion of excellent professional titles.

2) Establish a curriculum group to deepen course reform.

A course group is set up for each public elective course, and the course director should organize the relevant teachers to carry out collective lesson preparation and course discussion, optimize the teaching contents, innovate teaching methods, and make effective use of modern educational technologies and means to stimulate students' enthusiasm for learning. It is the limited and novel content that makes public elective course a good window of teaching reform. Beijing University of Agriculture encourages teachers to carry out teaching reform and strive for public elective courses with characteristics, vitality and new content, so as to provide experience for the teaching reform of other courses. In the aspect of course content, the university should pay equal attention to knowledge, amusement, practicability and systematicness, optimize the knowledge structure, also open interdisciplinary and comprehensive courses to broaden the students' horizons and expand knowledge, and cultivate the students' comprehensive quality and ability.

E. Establishing teaching quality management and monitoring system for public elective courses

Beijing University of Agriculture has strictly managed and monitored the teaching quality of public elective courses and set up a two-level teaching quality monitoring system. The Academic Affairs Office has established a teaching supervision center to supervise and inspect public elective courses, reduce teaching funds for courses where students' evaluation is low and teaching quality is poor, talk to teachers who deserve yellow card warning, and give red card warnings to those who reach them twice and their courses will be canceled next semester. Establish the evaluation system of public elective courses, while the Academic Affairs Office will associate with colleges to evaluate the public elective courses from four aspects (self-evaluation, supervision, peers, students), and the course ranking at the bottom has to make rectification within a time limit. Incorporate the quality inspection of public elective courses into daily teaching and inspection work. Implement the student information officer system and monitor the teaching quality and teaching order of the public elective course in real time.

III. ACHIEVEMENTS OF COURSE CONSTRUCTION AND TEACHING REFORM OF PUBLIC ELECTIVE COURSES IN BEIJING UNIVERSITY OF AGRICULTURE

First of all, a public elective course system that suits the characteristics of the university has been established. At present, more than 150 public elective courses have been set up through great efforts, including natural sciences, humanities and arts, mental health, social sciences, etc.. Several professional and popular courses have also been set up combined with the characteristics of our school, which have played an important role in optimizing students' disciplinary structure and improving students' comprehensive quality and ability.

Secondly, the operation and management mechanism of public elective courses has become more standardized. A number of famous teachers, professors and academic leaders have joined the teaching team of public elective courses. Therefore, teaching administration is now more normalized, while students' attendance rate is gradually increased, classroom discipline is greatly improved, and student satisfaction is soaring year by year.

Thirdly, the teaching quality has been improved and it is reflected on the teaching effect. Through teaching reform, the public elective courses have made positive progress in the teaching content, teaching method, assessment method, teaching effect and so on. The students have effectively improved the cultural accomplishment and comprehensive ability with the help of public elective courses, and gained

more reasonable knowledge structure as well as making outstanding achievements in all kinds of competitions and activities on and off campus.

IV. CONCLUSION

The course construction and teaching reform of public elective courses is a long-term process. Course construction and teaching reform of public elective courses in Beijing University of Agriculture has achieved initial results through a series of measures including improving and perfecting the management mechanism of public elective courses, strengthening course construction to build public elective courses system, reinforcing course management to improve teaching quality of public elective courses, and setting up quality management and monitoring system of public elective courses. However, it is constantly being tested in practice. There are still many difficulties in the operation of public elective courses, many sections to be ameliorated, some issues to be researched and explored, such as how the elective course system keeps pace with the times according to social development; how the public elective course management mechanism adjusts continuously based on the actual situation of the school and students; how to combine the elective course teaching with the students' innovation and entrepreneurial ability; and how to perform the unique moral education function of the public elective course. They all need further research and exploration.

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