

Exploration on the Chain Mixed Teaching Mode of Urban and Rural Planning in Independent Colleges

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Abstract: How to take a distinctive road of development and how to develop in dislocation with public colleges is a major issue facing the Urban and Rural Planning Major of Independent Colleges. As a typical representative of Independent Colleges in Yunnan Province, Dianchi College of Yunnan University has preliminarily explored the reform ideas of the curriculum system of Urban and Rural Planning Major in ethnic areas through the analysis and excavation of geographical location advantages and industry development trends, and built the technical chain of teaching means, the supply chain of teaching resources, the ecological chain of teaching content and the information chain of teaching evaluation, which further enriched and consolidated the curriculum system of urban and rural planning specialty in ethnic minority areas, and provided certain references for the planning, construction and management of small towns in ethnic minority areas to output applied talents with scientific research ability, scheme expression ability and innovation ability.

1. Difficulties faced by Urban and Rural Planning Major in Independent Colleges

Since urban and rural planning became a first-class discipline in 2011, according to China Education Online Statistics, a total of 207 colleges and universities in China have set up urban and rural planning majors, of which only more than 50 have passed the undergraduate professional evaluation. Under the attack of the "old eight schools" and the "new eight schools", the students majoring in urban and rural planning in the independent college are facing the dilemma of "unemployment upon graduation". Behind this dilemma, the following problems are revealed: (1) the professional characteristics are not clear, the curriculum training objectives are inconsistent with the development needs of the industry, and conflict with the employment orientation(2) The lack of integration between teaching content and ideological and political construction(3) It is difficult for learners to change their design thinking, and there is a disconnect between teaching and learning(4) The characteristics of learners' ability training are not distinct [2].

Table 1. Details of teaching problems

Teaching Problems	Details
<p>The professional characteristics are not clear, the curriculum training objectives are inconsistent with the development needs of the industry, and conflict with the employment orientation</p>	<p>Urban and rural planning is facing great changes in the development of the industry. Three colleges and universities without the advantages of traditional planning education should consider how to better cope with the industrial transformation of the national spatial planning and how to better serve the rural revitalization, and how to combine the "Internet plus" with the Internet to make better use of the spatiotemporal data in urban and rural planning.</p>
<p>The lack of integration between teaching content and ideological and political construction</p>	<p>Since enrollment in 2012, the urban and rural planning major of CCCC has focused on the construction of professional system and the cultivation of professional ability in the early stage. With the update of current affairs and policies, we have gradually realized the importance of curriculum ideological and political education. The ideology and politics of planning specialty are closely related to national security and ecological security. Strengthening the integration of curriculum thought and politics and curriculum teaching is conducive to better cultivate students' service consciousness.</p>
<p>It is difficult for learners to change their design thinking, and there is a disconnect between teaching and learning</p>	<p>In terms of teaching feedback over the years, thinking change is the biggest crux in teaching. This achievement carries out teaching reflection and reform according to the different stages of "low - Senior Grade", "theory - practice" and "false - true".</p>
<p>The characteristics of learners' ability training are not distinct</p>	<p>Combining the curriculum teaching with the training objectives of applied talents and the training orientation of the "cradle of civil servants" of the University, we will divert and guide students' scientific research and innovation ability, scheme expression ability, language reporting ability and planning ability, in order to help students shape competitive personal characteristics on the basis of meeting the basic requirements of talent training.</p>

2. Chain Mixed Teaching Mode of Urban and Rural Planning Major in Dianchi College of Yunnan University

As a typical representative of Independent Colleges in Yunnan, how to take a distinctive road of development and how to develop in dislocation with public colleges is a major issue facing the urban and rural planning major of Dianchi College of Yunnan University.

Since the establishment of urban and rural planning in 2012, we have continuously studied and explored the direction of professional development, and experienced the stages of "discussion and preparation", "reform and exploration", "initial results" and "continuous integration". Through the analysis and excavation of geographical location advantages and industry development trend, this paper preliminarily explores the reform ideas of curriculum system of urban and rural planning specialty in ethnic minority areas, and constructs the technical chain of teaching means, the supply chain of teaching resources, the ecological chain of teaching content and the information chain of teaching evaluation around chain mixed teaching.

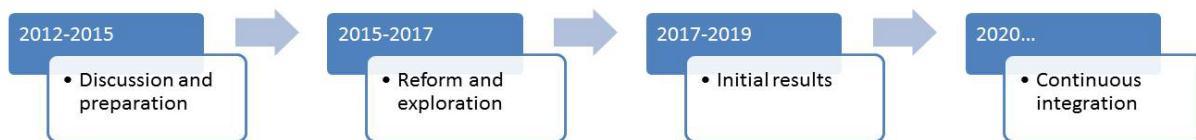


Figure 1. Practice Process

2.1 Technical Chain of teaching means

The technical chain of teaching means focuses on the joint construction of multiple courses. The first is the internal and external linkage of the major. First, the courses such as site design, architectural design and preliminary design are jointly taught with the major of architecture [1]. Second, BIM is introduced into the courses such as urban and rural infrastructure planning (concentration week) and students are encouraged to form teams in the competition. Third, combined with the needs of Rural Revitalization and development Employment oriented and civil engineering majors explore the teaching content of building materials. The second is cross grade linkage, such as the establishment of VR virtual simulation training group, postgraduate entrance examination group, etc. Finally, there is the linkage of courses within the specialty. Vertically, it takes the principles of urban and rural planning as the core, connects the leading and follow-up courses, and horizontally aims at the joint teaching of the same design task, such as the joint teaching of regulatory detailed planning, urban design and urban and rural infrastructure planning, which further deepens the teaching task and realizes the training goal of special planning.

2.2 Supply Chain of teaching resources

First, make use of the geographical advantages of the school and introduce senior engineers of the design institute to participate in teaching; Second, school enterprise cooperation, enrich teaching resources with the help of or system, VR virtual simulation training, Beidou navigation satellite system based digital security management engineering center and other information means; Three, the teachers and students jointly build the official account of WeChat public.

2.3 Ecological Chain of teaching contents

First, the design project "true questions and false ones", which organically combines the actual projects in Yunnan Province with the teaching objectives; Second, in the task topic selection, focus on highlighting the national cultural characteristics and border location advantages, take responding to national policies such as rural revitalization and ecological diversity as the teaching goal, take serving local industries as the guidance, and actively carry out the construction of teaching ideological and political content in combination with the development of key industries in Yunnan Province; Third, through reflection on teaching reform, teachers declare topics and write papers, and feedback teaching.

2.4 Information Chain of teaching evaluations

Actively expand the multi-dimensional system of teaching evaluation, build different evaluation dimensions of "teacher-student", "student-student", "student-teacher", "expert-teacher" and "enterprise-student" on the object, break the original curriculum scoring standard in time, and form the common evaluation of multiple courses through or system, internship unit evaluation, post-graduation questionnaire survey, etc. It is a teaching evaluation system with the participation of multiple teachers, effective iteration in various ways and assisted completion of multiple grades. Urban and rural planning is facing great changes in the development of the industry. The urban and rural planning specialty in independent colleges should not only have the advantages of traditional planning education, but also think about how to better cope with the industrial transformation of the national spatial planning, how to better serve the rural revitalization, and how to combine the "Internet plus" with the industry background to make better use of the spatiotemporal data in urban and rural planning.

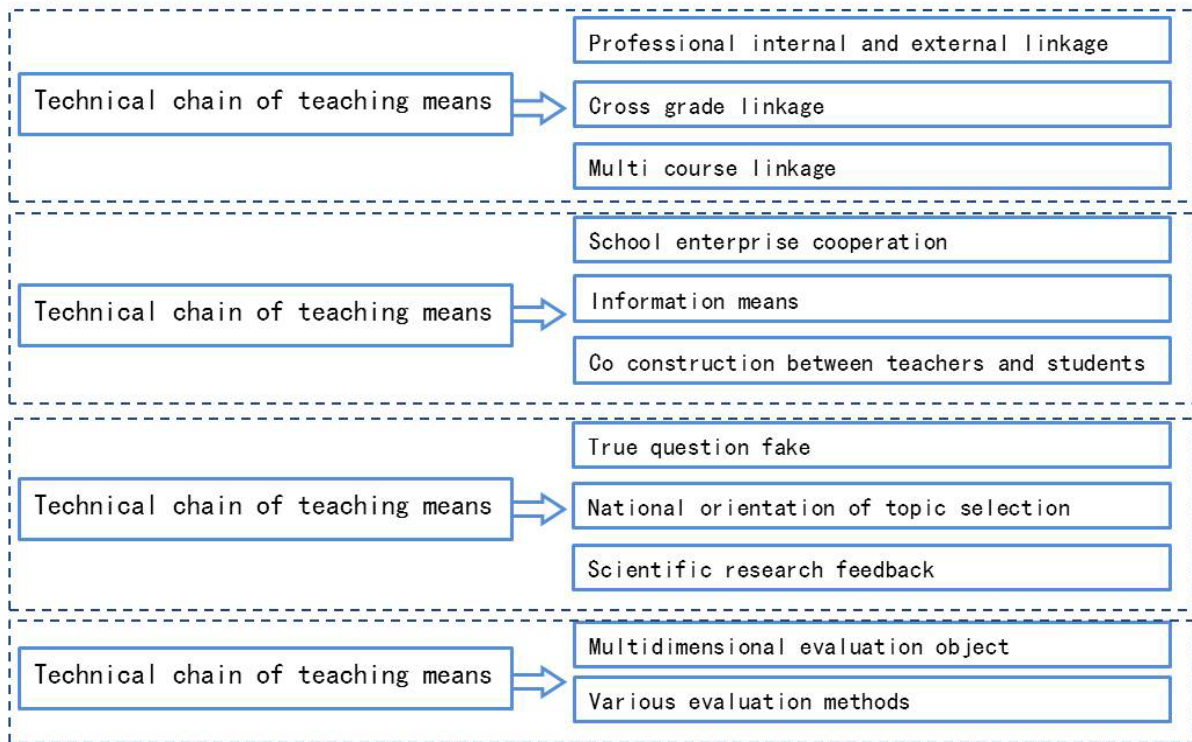


Figure 2. Innovation of Solutions

3. The concrete realization path of Chain Mixed Teaching Mode of Urban and Rural Planning Specialty in Dianchi College of Yunnan University

3.1 Clear professional positioning

Under the background of the new engineering, with career orientation, combined with the development trend of urban and rural planning industry, based on the cultural characteristics and regional advantages of Yunnan border multi-ethnic areas, organically combined with actual projects and teaching objectives, promote the reform and innovation of design courses, and meet the urgent needs of urban and rural planning, construction and management of small towns in border multi-ethnic areas. Then, through the reform of many design courses such as village and town planning and urban master planning, actively respond to national policies such as rural revitalization and ecological diversity, take serving local industries as the guidance, actively carry out the construction of teaching ideological and political content in combination with the development of key industries in Yunnan Province, and actually participate in Rural Revitalization with the help of activities such as "going to the countryside for three times".

3.2 Promote teaching with scientific research, lead the team with scientific research, and educate talents with scientific research

First, in view of the problem that the curriculum training objectives lag behind the development needs of the industry and conflict with the employment orientation, the reform objectives of the curriculum system of urban and rural planning specialty in ethnic minority areas are explored in an all-round way from "teaching management evaluation", and the teacher team participates in the compilation of teaching materials in a planned way in combination with professional characteristics; Second, promote teaching reform with the help of original scientific research achievements by hosting (participating in) various projects at all levels, publishing papers and participating in various trainings; Third, enrich teaching resources and strengthen the effect of practical teaching with the help of information means and practice bases such as or system, VR virtual simulation training room and Beidou navigation satellite system based digital security management engineering center.

3.3 Integrate curriculum design and competition, and conduct benchmarking design competition in terms of teaching time, design tasks, teaching objectives, etc

Taking village and town planning as an example, according to the overall requirements of "industrial prosperity, ecological livability, rural civilization, effective governance and rich life", this course adopts the integration of phased teaching and land space planning background. The first stage is the learning and mastering stage of practical village planning, with a relatively complete set of practical village planning as the main teaching content.. The second stage is the characteristic thinking and design stage of village planning, which carries out comprehensive, systematic, reasonable and orderly analysis and Research on the village, and carries out scientific, reasonable and distinctive village planning according to the requirements of the Rural Revitalization Strategy in the new era. In the teaching process, the ideas of "macro-micro", "comprehensive-node" and "overall-planning characteristics" are implemented, from shallow to deep, step by step, so as to deepen students cognition and understanding of knowledge points. The theoretical knowledge is mainly carried out in the form of special lectures. Combined with the demonstration of design methods and design practice training, teaching methods, blackboard writing design, experimental teaching, classroom discussion, case analysis, situation creation, classroom turnover, task driven teaching and other methods are introduced into different stages to guide students to transform theoretical knowledge, Master the relevant technical methods and means of village and town planning, and cultivate technical talents to implement the Rural Revitalization Strategies. In addition, the course adopts the chain mixed teaching method: the first stage is combined with the course "land use planning and management", the latter focuses on teaching and the former focuses on practice to stimulate students; interest in learning; The second stage is the benchmarking "rural planning and design" competition to promote learning, facilitate students to contact practical projects as soon as possible, and facilitate the effective connection between curriculum design and graduation practice[3].

3.4 Reform the assessment methods and expand students; scientific research ability, scheme expression ability and innovation ability

Through continuous exploration and reform, a teaching evaluation system has been formed with the joint evaluation of multiple courses, the participation of multiple teachers, effective iteration in various ways and assisted completion of multiple grades.

4. Experience and deficiency of chain mixed teaching of urban and rural planning specialty in Independent Colleges

Through the exploration of chain mixed teaching, the urban and rural planning major of independent college further defines the professional orientation and training characteristics. Through the reform, the teaching tasks and teaching time have been adjusted to varying degrees, which has preliminarily solved the dilemma of the disconnection between teaching and learning, between theory and practice, and between teaching and employment, and greatly stimulated the students; enthusiasm for learning. The multi-dimensional evaluation model is conducive to the cultivation of Applied Talents; scientific research ability, scheme expression ability and innovation ability, and has a certain reference for the construction of urban and rural planning curriculum system in ethnic areas.

However, in terms of the current teaching situation, there are still many deficiencies, such as the accuracy of the multi-dimensional evaluation system needs to be improved, and the time conflict in the docking process with the design competition needs to be solved. This will also be an important direction for the improvement and promotion of the chain hybrid teaching mode of urban and rural planning specialty in independent colleges.

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