



The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

The Connotation Construction of Agriculture-related Majors in the Vocational Schools

Yuehua QIN, Zhengping GAO, Hu ZHAO, Chengkui QIANG *

Xuzhou Key Laboratory of Modern Agrobiotechnology, Xuzhou Vocational College of Bioengineering, Xuzhou 221006, China

Abstract Taking the case of vocational schools in Xuzhou City, we analyze the challenges and opportunities faced by the connotation construction of agriculture-related majors in vocational schools. And we discuss the focus of connotation construction of agriculture-related majors, by establishing one theme, building two aspects, deepening three reforms and highlighting four tasks, aiming to make the connotation construction of agriculture-related majors get somewhere, and provide strong support for agricultural science and technology innovation. Finally we put forth measures for the connotation construction of agriculture-related majors.

Key words Vocational schools, Agriculture-related majors, Connotation construction

In recent years China's agricultural vocational education has entered an important period of development. Taking the case of Xuzhou City in Jiangsu Province, there were 31 secondary vocational schools in 2011, 16 of which enrolled agriculture-related majors. The schools enrolling agriculture-related majors account for 51.6% of total vocational schools in the city; the number of agriculture-related majors in all schools amounts to 44 in total, accounting for 14.0% of total majors in the city (313). The agriculture-related majors actually face not only unprecedented bonanza, but also seemingly insurmountable challenges, so it is imperative to bolster up the connotation construction.

1 The challenges and opportunities faced by the connotation construction of agriculture-related majors in vocational schools

1.1 Challenges The challenges facing the connotation construction of agriculture-related majors in Xuzhou City are as follows: (i) The development of higher education has imposed continuing brunt on the vocational education whose development is entangled in severe challenges and problems; (ii) The number of junior high school students tends to dwindle, which has pitted vocational schools against each other, thereby producing unprecedented pressure on agricultural schools and agriculture-related admission; (iii) Some of the newly established agriculture-related majors have shaky foundation, making it difficult to guarantee the educational quality.

1.2 Opportunities The opportunities facing the connotation construction of agriculture-related majors are as follows: (i) Policy advantages. Central Document No. 1 in 2012 spotlighted the agricultural science and technology, and proposed to bring agricul-

tural education into full swing^[1], well orientating and orchestrating the vocational education for rural areas and construction of agriculture-related majors; (ii) Location advantages. Xuzhou is a big agricultural city in Jiangsu with the level of agricultural industrialization and modernization both ranking first in the province. Now Xuzhou is striving to build "three bases" (including modern agricultural base) and "four major industries" (including processing industry of food and agricultural and sideline products), which will inevitably underpin the dramatic development of the agricultural vocational education; (iii) Professional advantages. After several years of the adjustment and development, the agriculture-related majors in Xuzhou have gained edge in the region, and the government support for agriculture-related majors has been increasingly reinforced. These have created favorable conditions for the connotation construction and development of the agriculture-related majors.

2 The focus of connotation construction of agriculture-related majors

2.1 Establishing one theme: giving priority to the development of agriculture-related majors The agricultural industry has been consigned to a weak position for a long time, which puts sand in the wheel of school running for agriculture-related majors. Xuzhou City should have an insight into the situation and status of major, make the major mesh well with industry and job, and put the majors of modern agronomy and horticulture technology on the top of the agenda of vocational education development during the 12th Five-Year Plan period. In accordance with the requirements of the Central Document No. 1 in 2012, it is necessary to entrench the guiding ideology of expanding the major around agriculture, developing the major to prop up agriculture and highlighting agriculture in major construction in agricultural vocational schools, to ensure priority to the development of agriculture-related majors and provide effective protection for forging new agricultural and rural talents.

Received: January 28, 2013 Accepted: April 14, 2013

Supported by Agricultural Vocational Education Reform and Development Research Project in Jiangsu Province (20110108).

* Corresponding author. E-mail: xzqek@yahoo.com.cn

2.2 Building two aspects: enhancing the schooling strength of agriculture-related majors

2.2.1 Strengthening the construction of agricultural teachers. Xuzhou City should firmly establish the concept of rejuvenating schools relying on talents, constantly deepen the reform of the personnel system, and strengthen the construction of agriculture-related major teachers, to provide force protection for the connotation construction of agriculture-related majors. In terms of the introduction and fostering of teachers, it should offer preferential policies for the agriculture-related majors, and invite the business elite to teach in the schools, to ease the pressure of student-teacher ratio and promote the construction of excellent teaching team.

2.2.2 Strengthening the construction of agricultural training base. It has given priority to the input to agricultural training base, and control the whole process of each agricultural training base with the construction of characteristic major and brand as core. Training base under takes the tasks of vocational qualification authentication of agricultural profession, skill competition and social training while having a commitment to students' skills training.

2.3 Deepening three reforms-improving the schooling quality of agriculture-related majors

2.3.1 Deepening curriculum reform. It has set up majors for agricultural enterprises, established courses for agricultural jobs and striven to foster the enterprising agricultural talents with good adaptability, to promote the curriculum reform. By many types of assessment activities and school-based training, it has made the curriculum reform converge in the classroom, improving teachers' awareness of curriculum reform and teaching ability.

2.3.2 Enhancing teaching management. It optimizes the teaching management system and achieves the unity of innovation and norms. Various vocational schools are actively improving the construction of teaching management system, and formulating the management methods such as skills identification and teaching supervision. They have strengthened quality control over the teaching aspects and deepened teaching management, to improve the quality of teaching. The assessment of teaching, students and logistical management is carried out in all vocational schools. They have strengthened the teaching process check, standardized the format and requirements of all kinds of teaching materials, and paid special attention to strict teaching and management, to ensure the quality of practical classes.

2.3.3 Deepening the talent co-education. The vocational schools take the initiative to adapt to the requirements of economic and social development, promote the innovation of training model, strengthen school-enterprise cooperation, and make every effort to cultivate precious skilled talents, to provide services for economic construction and business development. The schools provide rich student resources and technical resources to businesses and in turn the businesses use plenty of practical resources and real production to guide teaching reform.

2.4 Highlighting four tasks: expanding the social impact of agriculture-related majors

2.4.1 Highlighting the teaching and research work. With pro-

moting agricultural major construction as the goal and deepening the curriculum reform as focus, the teaching and research work aims to improve the ability of teachers to serve the community and enhance the level of scientific research. From the distribution system and policy orientation, the schools take a variety of measures in favor of the teaching and research, develop special policies for encouraging teaching and research, and take the teaching and research work and achievements as the main indicator for assessment, contributing to the formation of strong teaching and research atmosphere. The number of all levels of projects undertaken and paper published increases year by year, and many achievements have been awarded provincial and municipal scientific and technological progress prize and agricultural technology promotion prize.

2.4.2 Highlighting the fostering of students' overall quality. Multiplex education platforms are established to promote the comprehensive and sustainable development of the students. The schools lay stress on the construction of school culture, create cultural school, safe school and harmonious school; hold school culture and art festival, and enrich students' extracurricular cultural life. They seriously implement the dual certificate system, encourage students to participate in agricultural vocational qualification authentication and get certificates, and earnestly organize school-level agricultural skill competition.

2.4.3 Highlighting the practice of employment and entrepreneurship. The schools take into consideration employment and entrepreneurship, enhance students' employability and entrepreneurial ability education; based on the cultivation of vocational skills and practical ability, highlight the dedication education and integrity education, strengthen career planning guidance; build employment and entrepreneurship platform, encourage students to participate in various social entrepreneurship practices, strengthen the students' awareness of market, competition and entrepreneurship, to improve the students' practical ability and innovation ability; build a large number of relatively stable employment bases, organize human resource market within the school, to offer plenty of jobs for graduates.

2.4.4 Highlighting the services for agriculture, countryside and farmers. It has given full play to the functions of agricultural vocational schools in promoting science and technology, spreading market information, imparting entrepreneurial skills and alleviating poverty, to contribute to the construction of new countryside. The training is carried out for farmers, so that farmers master the "golden key" of advanced production and operation. The rural areas have strengthened school - village and school-town cooperation, and sent professional teachers as the "science and technology correspondent" to guide.

3 Measures for the connotation construction of agriculture-related majors

3.1 Promoting school-enterprise cooperation, school-government cooperation Combination of production and learning and school-enterprise cooperation is the basic approach to train

technology application-based talents^[2]. All vocational schools in Xuzhou should cooperate with agricultural enterprises to create jobs for graduates and sponsor entrepreneurs' public lecture with honesty as the basis, reciprocity as the core and cooperation as the key, to comprehensively elevate the level of cooperation. The schools should join hands with agricultural enterprises to jointly implement the teaching, jointly establish base and work together to foster teachers, in order to truly achieve multi-win of schools, students, businesses and society, and foster high quality skilled personnel who can adapt to the development needs of modern agriculture. The development of vocational schools and agricultural majors is inseparable from the support of the government and industry authorities. As a matter of fact, vocational schools have consolidated exchanges with the counties (cities, districts), and borne obligations for government departments to secure multi-faceted support in funds, talents and projects.

3.2 Strengthening the training base construction The training base is the main carrier of the vocational schools to train high-quality skilled personnel. Agricultural vocational schools should actively strive for all levels of special funds for vocational education and corporate industry support, for the construction of training base infrastructure and equipments. Meanwhile, it is necessary to actively cooperate with the industrial enterprises to attract business investment; rationally combine superior resources of schools and enterprises under the premise of respecting the bipartite interests^[3], to achieve diversified and sustainable development of input to training base construction. Furthermore, there is a need to strengthen the construction of training base outside the schools to roll out scads of productive, regional and comprehensive training bases and employment bases outside; actively explore the market-oriented operation mechanism, to build an effective school-enterprise win-win mechanism, benefits distribution mechanism and incentive mechanism.

3.3 Innovating upon talent training model The schools are recommended to strengthen the study and research of vocational education theory, and draw on advanced vocational education curriculum mode and training mode to organize the teaching content based on the law of career growth^[4], and develop vocational education curriculum system combining learning with working; actively participate in the compilation of national and industry planning materials, and develop teaching materials which can fully reflect the characteristics of agricultural vocational education; strengthen the construction and management of quality courses to ensure that there are more than one school-level quality courses in each agriculture-related major; strengthen links with the community, and take the initiative to serve the local economic construction.

3.4 Strengthening the construction of double-qualified teachers It is necessary to unswervingly push forward the strategy of relying on talents to rejuvenate the school; pay equal attention to introduction and training, academic education and capacity elevation; actively innovate upon the teacher management mechanism for the growth of excellent talents, implement "leading

teacher training project", "double-qualified teacher training project", "outstanding teaching team building project" and "teacher training project", to establish a dynamic team of double-qualified teachers.

3.5 Enhancing the ability to serve agriculture, countryside and farmers The schools should build the continuing education system to serve agriculture, countryside and farmers, make continuing education and social training bigger and stronger; actively carry out various types of training and appraisal of agricultural vocational skills, training for rural grass-roots cadres, and practical technical training for farmers; rely on training projects of the Ministry of Agriculture, coupled with agricultural upgrading actions, to positively carry out pre-job training and various types of social training for the transfer of rural labor, making the annual number of people trained tantamount to the number of students at school.

3.6 Paying attention to enrollment and employment At present, the sources of junior high school graduates in Jiangsu Province and Xuzhou City decline year by year; the enrollment face greater difficulties, and there is greater competitive pressure faced by the agriculture-related majors. The schools should strengthen communication with the education authorities and enrollment management departments; make good use of national policy to support agriculture-related majors; effectively carry out enrollment propaganda work and actively expand the sources of students outside the province; focus on building the "overpass" for the cultivation of agricultural vocational education talents; take employment as the priority in the school, and use employment to boost enrollment; adopt the forms of school job fairs and career guidance seminars to provide services for students; continue to expand the job market, expand graduates' employment space. At the same time, it is also necessary to enhance students' ability to start an undertaking, develop students' awareness of entrepreneurship, encourage students to start their own businesses, and create the atmosphere of pioneering work.

4 Probing into the connotation construction of agriculture-related majors

Organizing agricultural vocational education hinges in a large measure on support of government and the agricultural industry authorities. Consequently, governments at all levels should further clarify the duties and liabilities for agricultural vocational education, increase efforts to support the agricultural schools and agriculture-related majors; further determine the funds security system for agricultural vocational education, to ensure the appropriation of funding for agriculture-related majors; provide employment opportunities to outstanding agriculture-related graduates to ensure that there is no lack of successors to carry on agricultural extension system; strive to achieve the purpose of using rosy prospects of employment to promote consummate enrollment.

References

- [1] The CPC Central Committee and State Council issued the several opinions on continuous enhancement of guarantee capability of agricultural products supply by accelerating agricultural scientific and technical innovation[N]. People's Daily, 2012 -02 -02. (in Chinese).

3 Discussion about grading standard of achievements awarded, papers published and project research

The fundamental approach for agriculture is science and technology, the spirit of science and technology is innovation, and the key of innovation lies in talent. Quantitative grading standard for salary promotion of agricultural scientific researchers is directly correlated to income and remuneration of scientific researchers. Thus, to study and establish scientific, fair, just, open, reasonable and operational quantitative grading standard for salary promotion is a great task concerning stability of scientific research institutes and sustainable development of scientific research.

3.1 Weight of achievements awarded, papers published and project research in score setting When establishing quantitative grading standard for salary promotion of agricultural scientific researchers, it should set the score according to importance, difficulty in getting the award, and contribution to development of scientific research. Take Chongqing Three Gorges Academy of Agricultural Science as an example, in 2001 – 2010, this academy obtained 18 scientific research achievements in total (about 2 projects annually), approved establishment of 146 projects (about 15 projects annually), and published 207 papers in various levels of periodicals (about 21 papers annually). It can be concluded that the score should be achievements awarded > project research > papers issued.

3.2 Sticking to "One yardstick" principle in establishing grading standard and during evaluation The "One yardstick" principle means that agricultural scientific research should be followed in establishing grading standard and during evaluation. When treating the problem of fairness and reasonableness, it should stick to fairness and the "One yardstick" principle. When there are first author and correspondence author, it should give the

highest score to the first author and less or no score to other authors.

3.3 Sticking to "One vote veto" principle in establishing grading standard and during evaluation In an organization, due to limitation to salary promotion target authorized by the superior authority, where only one score is allowed in case of the same score from two or more evaluators, it should stick to the principle of "One vote veto". This principle is a method to determine the final winner by one vote. The evaluation items can be project (if any) chaired, number of projects chaired, level of projects, level of achievements awarded, first-author papers published, and level of first-author papers published. From comparing these items, the final winner will be determined by the "One vote veto" principle.

References

- [1] ZHU TF, LUO RT, SHEN W. The opportunity and difficulties of internal income distribution system reform of agricultural research institutions [J]. Management of Agricultural Science and Technology, 2008, 27(2): 57. (in Chinese).
- [2] WU LF, FU JR, CHEN ZX, *et al.* Analysis on how to improve job satisfaction among scientific researchers in academies [J]. Management of Agricultural Science and Technology, 2008(1): 95. (in Chinese).
- [3] HE P. Analysis of rewarded science and technology achievements of CAAS in recent ten years and suggestions [J]. Management of Agricultural Science and Technology, 2007, 26(6): 40. (in Chinese).
- [4] CAO X, YE K, REN HS. Statistics and analysis on science and technology paper published between 2000 and 2007 in Xinjiang Academy of Agricultural Sciences [J]. Management of Agricultural Science and Technology, 2008 (6): 48. (in Chinese).
- [5] YANG XJ, WANG JS. Work hard to construct science and technology innovation system and continuously promote science and technology advance [J]. Management of Agricultural Science and Technology, 2007, 26 (6): 47. (in Chinese).
- [6] ZHU X, MEI FZ. Means for developing studies on social science under research type university background [J]. Management of Agricultural Science and Technology, 2007(6): 20. (in Chinese).

(From page 110)

- [2] LI HZ. An Introduction to Higher Vocational Education [M]. Beijing: Science Press, 2009: 142 – 145. (in Chinese).
- [3] HE LJ. Study on the operating mechanism and mode of vocational education training base under the background of cooperation between school and enter-

prises [J]. Secondary Vocational Education, 2010 (24): 12 – 14. (in Chinese).

- [4] TONG NC. Discussion on the construction of teaching contents of higher vocational courses [J]. Chinese Vocational and Technical Education, 2010 (14): 5 – 7. (in Chinese).

About KIT

The Royal Tropical Institute (KIT) in Amsterdam is an independent centre of knowledge and expertise in the areas of international and intercultural cooperation, operating at the interface between theory and practice and between policy and implementation. The Institute contributes to sustainable development, poverty alleviation and cultural preservation and exchange.