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### An Empirical Study on Improving the Quality of Agricultural Undergraduate Thesis from the Perspective of Professional Certification

Huixiang Lu\*, Jiankui Zhang\*

College of Agronomy and Biotechnology, Southwest University, Chongqing 400715, China

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Abstract: Professional certification is an important way to promote professional construction and the quality of personnel training. Undergraduate thesis is an important part of comprehensive training for agricultural students, and it is also one of the "prescribed actions" of professional certification examination. Based on the perspective of professional certification, taking the graduation thesis of Agronomy Major of Southwest University in recent five years as an example, this paper analyzes the reasons for the gap between the quality of graduation thesis and professional certification standards, and puts forward six paths to improve the quality of graduation thesis of agricultural undergraduates, such as more independent topic selection, more diversified forms, multilink submission materials online, relaxed time, and adding graduation thesis index We should guide the project, link up the construction of professional core courses, build a "learning community between teachers and students".

**Keywords:** Agriculture; Undergraduate; Graduation thesis; Quality improvement; Professional certification

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ngswu@163.com; Jiankui Zhang, jkzhang@swu.edu.

\*Corresponding author: Huixiang Lu, luhuixia cn

Based on the perspective of professional certification, this study analyzed the graduation theses of Agronomy from 2016 to 2020 in Southwest University (625 Graduation Theses in total, part of the data came from 264 students randomly surveyed). The purpose of this study was to find out the reasons for the gap between the graduation theses of Agronomy and professional certification standard (Level 3), and to explore the reasons Discuss the path to improve the quality of agricultural undergraduate thesis.

### 1 The reasons for the gap in professional certification of benchmarking

### 1.1 The new concept of talent cultivation is not implanted in time

The convening of the National Education Conference and the promulgation of the "new education 40" and "six excellences and one top-notch" 2.0 plan provide new opportunities and new requirements for professional certification. Professional certification emphasizes that the development of students is the foundation. "Anji consensus", "Beidacang action" and "Beijing Guide" new agricultural trilogy have been played in an all-round way. The new concept of talent cultivation has been implanted in time, the new path and new paradigm of higher agricultural and forestry education reform facing the future have been explored, and the classified development, characteristic development and connotative development have been paid attention to. It is of great significance to create excellent professional teaching quality and cultivate adaptive talents The talents needed in the future are very important<sup>[1]</sup>. In the process of graduation thesis, it is difficult to keep up with the pace of the times, integrate elements such as "new agriculture" and "smart agriculture" and cultivate students with classified characteristics, so as to improve students' feelings and professional quality of "agriculture, rural areas and farmers" in essence.

# 1.2 The integration of high-level, innovative and challenging is not enough

Chen Baosheng, Minister of education, stressed at the National Conference on undergraduate education of colleges and universities in the new era that it is necessary to reverse the phenomenon of "middle schools playing with their lives and happy universities". It is necessary to change the situation that college students can easily graduate. It is necessary to reasonably "increase the burden" on college students and improve the difficulty and depth of their schoolwork. Among the students in the past five years, rare students can't graduate because their graduation thesis is not up to standard. Colleges and teachers do not have the heart to "release water" to students. As time goes on, teachers and students' energy input decreases, graduation thesis loses its high-level, innovative and challenging, and the overall quality declines<sup>[2]</sup>.

## 1.3 Inadequate response to changes in external environment

The enrollment expansion of colleges and universities leads to the decline of the quality of students, the increasing pressure of students' employment, and the endless problems of physical and mental health, which lead to some students' physical and mental impetuousness and make it difficult to carry out professional study and scientific research. The lack of response to changes in the external environment leads to the lack of "three rural" feelings of some students, and even the loss of academic ethics and research integrity. The phenomenon of plagiarism and patchwork of graduation thesis is common. Some students' graduation thesis is one-sided or all extracted from the research content of graduate students under the guidance of their tutors, which is lack of integrity. According to the survey, 77% of the students think that their graduation thesis can definitely pass, and 36% of the students spend less than a month writing their graduation thesis. As a time and brain intensive work, it is difficult to guarantee the quality of writing without strong motivation and sufficient time guarantee.

# 2 Suggestions on improving the quality of agricultural undergraduate thesis

#### 2.1 More independent topics

In principle, the topic selection of graduation thesis can only be approved after being discussed and approved by three or more experts. The leader of the expert group shall be a teacher who is not in the team of the instructor and has a senior professional title. On the basis of the standard selection procedure, students are encouraged to choose their own topics, and teachers should give appropriate guidance to increase the proportion of students to choose their own topics. For the students who undertake the innovation and entrepreneurship training program at school level or above and whose graduation thesis research direction is the project, the topic selection report can be replaced by the project agreement. When the tutor of graduation thesis is determined, the students' will to choose the topic should be fully considered.

#### 2.2 More diversified forms

According to the category of students' topic selection, the form of graduation thesis submission is added. Improve the overall level of basic research and applied basic research graduation thesis, and moderately increase the proportion of Applied Development Research graduation thesis. Students are allowed to submit graduation theses (designs) that are in line with the professional training objectives, such as creative design, special research, work performance, etc. When the conditions are ripe, students are allowed to complete the graduation thesis (Design) in the form of small teams.

#### 2.3 Multi link submission online, time relaxed

Make full use of the graduation thesis management function of the school's educational administration system, and use the online educational administration system to submit the topic selection report, duplicate checking paper, instructor's review and cross review paper submitted in the early stage<sup>[3]</sup>. The paper materials will not be submitted in the early stage,

and the submission time of each link will be relaxed. For example, the deadline of topic selection will be changed from the beginning of the seventh semester to the end of the semester. The authority of duplicate checking is transferred from the college to the tutor team or tutor, and the time of duplicate checking is extended to the time from students completing the first draft of graduation thesis to the eighth semester of cross evaluation. Tutor's evaluation and cross evaluation all adopt online evaluation mode of educational administration system, and only after tutor's evaluation is completed can they enter the cross evaluation link. The time of cross review should be controlled in about one week, and the teachers should be given enough time to ensure the effect of cross review. After the graduation thesis defense is completed, the students are given about half a month to complete the graduation thesis to ensure the quality of the final graduation thesis. In the first ten days of June, a complete set of electronic materials for graduation thesis were submitted and paper materials were collected for filing.

## 2.4 Add a special topic for graduation thesis guidance

Revise the personnel training plan, and add the topic of graduation thesis guidance in the graduation thesis link. The courses include academic ethics and research integrity, literature retrieval, scientific and technological paper writing, research methods and data analysis, defense skills, etc. Taking the completion of project participation as an important part of graduation thesis will change the situation that students can't write thesis, can't write thesis well, and don't know how to reply.

## 2.5 Link up the construction of professional core courses

Make full use of the construction opportunity of professional core courses, increase the training of students' literature search, academic thesis writing, experimental research methods, software data analysis and other skills in professional core courses, so as to lay a good foundation for graduation thesis writing. In addition, through small class teaching and mixed teaching of professional core courses, students' feelings of "agriculture, rural areas and farmers", time management and interpersonal communication skills are increased, and the effect of graduation thesis is improved.

## 2.6 Constructing "learning community of teachers and students"

University teachers undertake a lot of teaching and scientific research affairs, and put more energy on guiding doctoral and master's theses, which makes them lack of skills. The establishment of a "teacherstudent learning community", the arrangement of undergraduate students to participate in the discussion group meeting, qualified tutors can assign the doctoral or senior graduate students to guide the preliminary details of graduation thesis, which can not only relieve the pressure of tutors themselves, but also achieve the goal of common progress.

#### 3 Conclusion

Graduation thesis is a systematic project, quality is a relative concept. The work of undergraduate thesis should be carried out in accordance with the actual situation of the University, the major and the students. Under the guidance of "Rural Revitalization" strategy, how to play a good role in serving "agriculture, rural areas and farmers" in agricultural colleges and universities, professional certification guidance is of far-reaching significance to promote the construction of Agricultural Majors. Doing a good job in the basic work of professional certification, continuously improving the education and teaching links including graduation thesis, and cultivating talents to meet the needs of the future will add new impetus to the construction of world-class universities and firstclass disciplines, and make important contributions to the development of the industry and even the whole society.

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