

## On the Training Mode of Modern Agricultural Science and Technology Translation Talents

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**Abstract:** With the initiative of “The belt and road” strategy, the increasing interaction between China and foreign countries highlights the importance of translation. The purpose of this study is to establish a systematic and industrialized training mode of modern agricultural science and technology translation talents. This paper presents an analysis of existing problems of agricultural translation and the current situation of cultivating agricultural science and technology translation talents in colleges and universities. It puts forward a practical integrated model from aspects, like curriculum, faculty, classroom teaching, the cooperative mode of production, learning and research, the support of colleges and universities for teaching reform, the guidance of government policies and financial investment, with the aim of cultivating more high-level and professional agricultural science and technology translation talents.

### 1. Introduction

With the rapid development of society, China is connected with the world more and more closely. As a large agricultural country, China inevitably has to participate in international agricultural exchanges and cooperation, so the demand for agricultural science and technology translators is inevitable. According to *Analysis of the development prospect of China's translation industry and development strategy research report in 2017-2022*, the total demand for translation is increasing. Demand for translation talents is improving, too. As the training of translation talents is different from that of foreign language talents, many colleges and universities have realized that there should be a different way of cultivating translation talents. As a fast-growing branch of translation market, agricultural science and technology translation lack in reserve of talents severely. There is a huge gap in current agricultural translation team, far from meeting the huge market demand, which can be seen from the recruitment information at major recruitment websites. Therefore, cultivation of qualified science and technology translation talents has become an important teaching task in agricultural colleges and universities in the new era.

Agricultural science and technology translators are responsible to spread professional agricultural information to the world. They undertake the task of introducing foreign advanced agricultural information and the task of exporting domestic agricultural science and technology. Agricultural students are the main force of agricultural science and technology personnel in the future. How to train them to translate agricultural texts accurately and appropriately has become the top priority of English teaching in agricultural colleges and universities. This paper discusses how to form a feasible integrated training model of agricultural science and technology personnel from several aspects.

### 2. The Current Situation and Problems in the Cultivation of Agricultural Science and Technology Translation Talents in Colleges and Universities

The cultivation of translation talents mainly relies on colleges and universities. At present, colleges and universities are obviously short of effective measures in the cultivation of translation talents, which leads to the result that there are not enough competent personnel to meet the needs of the society. From current situation of the cultivation of agricultural scientific and technological translation talents in Colleges and universities, there are mainly four problems as follows. Firstly,

the awareness of training orientation in colleges and universities is not strong enough. The training mode in agricultural colleges and universities is generally the same, mainly focusing on basic knowledge learning, lacking in clear professional direction and scientific courses in training process. The way of teaching makes the students' actual translation level weak and finally causes difficulties in employment after graduation. The root of this problem lies in the lack of investigation into the reality of social needs and the lack of accuracy and clarity of training application in Colleges and universities. These reasons leads to a serious decoupling between training ways and development requirements of translation industry. In particular, agricultural scientific and technological translation is a huge emerging market direction, which has not yet attracted enough attention of colleges and universities.

Secondly, the knowledge pedigree in colleges is not perfect, with insufficient basic science and technology courses. Technological translation requires translators to be proficient in both foreign language and professional area. In current college English teaching, translation courses mainly focus on theoretical knowledge, rarely involve in agricultural specialty, which results in students' incompetence for translation work after graduation. Translation is a very practical subject. English translation ability and professional knowledge background are both essential in translation work. The curriculum design of science and technology translation in agricultural colleges and universities has been set unreasonable.

Thirdly, the teachers' professional ability are weak. The cultivation of high-level translation talents is inseparable from the excellent teachers' team. The translation level and quality of teachers directly affect the cultivation of students. Nowadays, the faculty of science and technology translation in Colleges and universities are mostly composed of full-time foreign language or literature teachers. These teachers are proficient in foreign language teaching, but their knowledge reserve are mainly based on theory, which makes their translation teaching tend to theory rather than practice. Meanwhile, they are not familiar with characteristics of scientific and technological translation. Therefore, it is difficult to meet the requirements of teaching expectations and cultivate qualified technical translators.

Fourthly, there is the lack of corresponding investment. Some colleges and universities have not yet established a supporting translation training platform. The main part of translation training is translation practice. Without practice base for scientific and technological translation, the college translation teaching fails to give full play to its role, and the cultivation of talents cannot be closely linked to the translation work in reality. The above reasons eventually lead to the awkward situation that foreign language major students are not competent for the translation work from enterprises and agricultural institutions after graduation; on the other side, non-foreign language graduates are also incompetent because they do not acquire special technical translation training. They are relatively weak in foreign language foundation and lack related translation theories and practice. It can be seen that scientific and technological translation talents trained in Colleges and universities cannot meet the actual needs of employers at present.

### **3. The Integrated Training Mode of Scientific and Technological Translation Talents**

Many scholars have studied the current situation and courses of the cultivation of scientific and technological translation talents, and have made a beneficial combination of teaching and practice, but the effect is not ideal. There is not an integration of technical terms, translation skills and cultural differences in college agricultural translation teaching. The application of means of apprenticeship training is not implemented enough in translation teaching. Thus, colleges and universities fail to find a systematic way to cultivate more comprehensive scientific and technological translation talents. The goal of training talents should be set to solve problems, like incompetent personnel and insufficient talents in agricultural science and technology translation. In the light of the requirements of the times, students should be guided to be personalized, practical and innovative in accordance to the "The belt and road" in the new era. It is essential to form a practical integrated model from curriculum, teachers, classroom teaching, cooperation of production, teaching and research, university support for teaching reform, government policy guidance and

financial investment to implement.

### **3.1 Curriculum**

The curriculum should be optimized and the teaching content updated. Agricultural science and technology translators are compound talents. They should not only possess profound language skills, but also obtain systematic and solid professional knowledge, as well as practical translation ability. Therefore, the traditional curriculum and content need to be adjusted and reformed. Firstly, basic knowledge in the field of agriculture is combined with foreign language application skills. In addition to the courses of Agronomy and agricultural knowledge learning, there should be sufficient courses such as English basic courses, translation basic courses, translation training, translation software application, etc. Secondly, theoretical study is combined with practical application. The cultivation of practical translation talents is inseparable from the study of translation theory and the practical application in the real language environment. The practice of agricultural translation is very strong, and it is difficult to cultivate high-level translation talents in agricultural field only by learning the theoretical knowledge of books. Only after a considerable amount of translation practice, further study, and improvement can comprehensive talents be cultivated. In terms of theoretical study, relevant policies cannot be neglected, like regulations, systems and policies in the field of agriculture in China and the West. The prerequisite for cooperation in transnational projects is to abide by the relevant laws and regulations of two countries. In terms of practical application, specific practice of foreign language communication are focused, such as participating in English corner, English salon, online chat, etc. Much attention must be paid to actively participation in the real international exchange and cooperation activities, so as to exercise and improve the language communication ability in the specific language use process.

Thirdly, technical translation skills are trained. Technical writing is required to convey technical information of the original text, and cater to the needs of clients and the purpose of the text. Thus, the training of agricultural technical writing should include: technical writing overview, technical text writing and translation, text compilation and processing. Translation case textbooks like patent technology texts, scientific and technological papers, engineering technology texts, etc. can be added into agricultural translation teaching. Translation tasks are provided by cooperation units and the results are evaluated jointly by teachers and translation users. The curriculum can adopt a joint mode of “teacher lecture + expert lecture”, that is, a combination of professional knowledge and translations skills.

At last, translation elective courses are offered in agricultural colleges and universities to enable non-foreign language majors to have the opportunity to learn translation skills. The elective courses can help students access to the latest scientific and technological developments in the world timely, enrich their professional reserves, improve their technical level, and have more employment options after graduation. New systematic curriculum should offer students more opportunities to enterprises or work sites to obtain specific experiences.

### **3.2 Faculty**

The shortage of professional teachers is a common problem in Colleges and universities in China. On the one hand, most of the teachers are trained in foreign language and literature major, and they are short of practical experience in agricultural science and technology translation; on the other hand, the background of pure-liberal arts not only causes the teachers' low professional awareness of agriculture, but also leaves many confusions on how to combine teaching with specialty. First-line teachers are the key to improve students' ability of scientific English translation. The structure of teachers should be reasonable. It is based on professional high-educated and high-level teachers, and is equipped with sufficient teachers for foreign language basic courses. Young teachers can be arranged to join first-line enterprises for training, and a group of experienced agricultural science and technology English translators are hired from large enterprises, scientific research institutions and translation companies to give lessons in agricultural colleges and universities.

### **3.3 Classroom Teaching**

In the cultivation of agricultural science and technology translation talents, high-quality translation classroom teaching is very necessary. There are several steps of classroom teaching as follows. Firstly, translation teachers should select appropriate teaching materials and teaching content in the actual teaching process, and attach the introduction of the original language readers and the target language readers. Secondly, teachers divide students into several groups and takes each group as one unit to receive the translation task. After class, according to the translation task, each student will consult relevant materials, learn relevant professional terms, write their own translation for discussion, and finally deliver a translation. Thirdly, one group of students are chosen to discuss the language characteristics, stylistic characteristics, content theme, writing purpose and related professional knowledge of the original text in class. Fourthly, another group of students are selected to read the original text and their translation sentence by sentence in PPT. Fifthly, other students compare their own translation, find out their common points and differences, discuss them, and point out the translation skills used. Finally, teachers give out evaluations on spot. In the classroom teaching, a task-based teaching concept is adopted in classroom learning. Students are taken as the main body, and they are trained to set up an independent learning mode with the goal of application.

### **3.4 Cooperation Mode of Production, Learning and Research**

It is necessary to establish an innovative translation teaching mode based on the cooperation of production, learning and research. During the process of cooperation, needs and requirements from enterprises and market are conducive to form a practical training way of translation talents in agricultural field. There are two ways of cooperation. One is to take college-enterprise alliance. Colleges and universities undertake the task of training agricultural science and technology talents, teaching relevant theoretical knowledge, and offer opportunities for students with good foreign language foundation to practice in agricultural enterprises. Enterprises are responsible for providing a training platform for students to participate in the actual project translation. This is a “win-win” practical teaching cooperation for both colleges and industries. Colleges and enterprises integrate their advantageous resources, strengthen the cooperation and realize a zero-distance connection between talent training and market demand, which can promote the mutual benefits for common development.

Through college-enterprise cooperation, firstly, colleges and universities can obtain a large number of useful teaching resources and technologies, which is conducive to promote teaching and research work. Secondly, cooperative teaching can train students' post awareness and practical ability to improve students' soft power. Thirdly, a series of problems are overcome, like the disconnection between traditional translation teaching and practice, and the disconnection between practice and employment. Fourthly, for enterprises, rich talent resources are reserved and provided, which is beneficial to the sustainable development of industry. Fifthly, carrying out cooperative translation research with enterprises or research institutions can help colleges and universities promote the construction of translation discipline and the transformation of scientific research achievements. There is another cooperation of transnational training. With the advantage of international cooperation projects, excellent agricultural science and technology students can be selected to study in foreign universities or practice in foreign scientific research institutions. Through substantial daily language communication and application, language application ability and translation ability can be directly improved.

The cooperation mode of production, learning, and research not only enriches translation teaching theory, but also provides theoretical guidance for the development of translation industry and market services. The practical mode of cooperative education is an important guarantee to train applied scientific and technological translators to serve the needs of local economy, culture, and scientific and technological development.

### 3.5 Policy Support and Economy Investment

The training mode of modern agricultural science and technology translation talents cannot be constructed without government support and teaching reform in colleges and universities. Specifically, on the one hand, as the policy maker and investor of higher education, the government should favor the cultivation of agricultural science and technology translation talents in Colleges and universities in policy, invest in talent cultivation and the construction of practice base in finance, and provide subsidies for directional exchanges and learning at home and abroad. On the other hand, as the implementer of the teaching reform, colleges and universities provide support in the teaching system, provide double-qualified teachers, employ senior scientific and technological translators from enterprises, actively build a training platform for directional cooperation between colleges and enterprises, ensure the time and full exercise of social practice, and recommend the internship opportunities of foreign directional Enterprises for the outstanding. With the guidance of government policy, financial investment and university support, a practical training mode of modern agricultural science and technology translation talents can be fully implemented.

### 4. Conclusion

The increasing demand for agricultural science and technology translation talents means that colleges and universities have great responsibility in training qualified agricultural translation talents. A practical integrated model includes different aspects, like curriculum, faculty, classroom teaching, the cooperative mode of production, learning and research, the support of colleges and universities for teaching reform, and the guidance of government policies and financial investment. It breaks the traditional teaching method of “translation oriented” and reflects the characteristics of the application of teaching content. An integrated cooperation mode will lay the foundation for students to become high-quality modern agricultural scientific and technological translation talents for the society in the future.

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