On the Training Mode of Cross-major Postgraduate Students Based on Learning Transfer Theory

Yi LIU\(^1,a\) and Kan ZHANG\(^2,b,\)*

\(^1\)Educational Informatization Research Center of Hubei, Central China Normal University, Wuhan, Hubei, China

\(^2\)School of Finance, Zhongnan University of Economics and Law, Wuhan, Hubei, China

\(^a\)liuyi136@126.com, \(^b\)wuhancd360@126.com

*Corresponding author

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Abstract. This paper analyzes the characteristics, current learning status and existing problems of cross-major postgraduate students, and explores the underlying causes of the problems and propose targeted countermeasures to perfect training mode of cross-major postgraduate students including the reform of teaching methods, the improvement of curriculum systems, the improvement of learning methods, the enhancement of research capabilities, and the improvement of the quality of dissertations according to the learning transfer theory.

Introduction

Cross-major postgraduate students refer to the postgraduates whose undergraduate majors and postgraduate majors are different. With the rapid development of postgraduate education in our country, the proportion of cross-major postgraduate students has continuously increased. Although the source of postgraduate students has been enriched as a result and the knowledge structure of cross-major postgraduate students is conducive to the cultivation of compound talents, there have also been some problems in the process of training students.

The main problems existing in the training of cross-major postgraduate students

(1) The learning method is not scientific. Cross-major postgraduate students often completely separate their original professional and master's professional without integration. This results that they are difficult to use the original professional basis fully and their academic starting points for learning new professional are reduced.

(2) The curriculum system is not perfect. Cross-major postgraduate students did not contact with the majors at the undergraduate stage, and their professional basic knowledge is relatively weak. However, the traditional graduate professional courses system does not fully account for the features of cross-major postgraduate students.

(3) Research capacity is weak. Cross-major postgraduate students lack the relevant academic training for the master's degree, complete understanding of the professional theoretical system, the correct understanding of the professional development direction, and the relevant research tools and research methods. Therefore, they usually face relatively large difficulties in academic research.

(4) Dissertations writing is difficult. The dissertation can reflect students' theoretical foundation, learning ability, scientific research ability, operation ability and creative ability comprehensively. It is not only the most important scientific research achievement of the postgraduate students, but also the most direct reflection of the postgraduates' learning effect. Cross-major postgraduate students often encounter great troubles in the writing of academic papers, which are mainly reflected in the difficulties in the selection of the topics of papers, research design, and the comprehensive application of theories.
Literature Review

In recent years, domestic scholars have begun to pay attention to and study the problems of the cultivation of talents for cross-major postgraduate students. The main research results can be divided into two aspects:

(1) The status of learning of cross-major postgraduate students. Wei (2014)[1] analyzed the status of learning, difficulties in learning, and the needs of cross-major postgraduate students from the aspects of the applying for majors, learning situation, exchange with instructors, and career planning; Ma (2014)[2] compared the difference in the learning situation between the cross-major postgraduate students and non-cross-major postgraduate students from the aspects of psychology, attitude of learning, learning performance and research ability. Chen et al. (2017)[3] found that the career adaptability of cross-major postgraduate students is better developed.

(2) Countermeasures to improve the cultivation of cross-major postgraduate students. Zhao et al. (2010)[4] addressed suggestions for guiding cross-major postgraduate students study and research for the common problems faced by cross-major postgraduate students; Li (2013)[5] analyzed the existing problems of cross-major postgraduate students and raised countermeasures including the selection mode for graduate admissions, the establishment of an open curriculum system, and the development of diverse teaching methods; Cao (2015)[6] made suggestions about how to improve scientific research capabilities of cross-major postgraduate students; Zhu et al. (2015)[7] applied the SWOT model to propose training measures to enhance the innovative ability of cross-major postgraduate students. Teng et al. (2016)[8] proposed four new learning modes that combine MOOC with traditional learning modes from the four aspects of learning ability, psychological literacy, training methods, and tutor system.

In general, domestic research of cross-major postgraduate students is limited and focused on the problems existing in the cultivation of cross-major postgraduate students from macro perspectives. However, the research is not closely related to the characteristics of cross-major postgraduate students and the proposed policies and suggestions are relatively broad.

Countermeasures and Suggestions

In the face of the above problems, it is a good choice to use learning transfer theory to optimize the training mode for cross-major postgraduate students. Learning transfer refers to the effect of learning results onto another type of learning. In essence, learning transfer means that learners apply the learned knowledge and experience (including concepts, principles, methods, skills, techniques, etc.) to the new situation after processing and restructuring. According to the nature of the transfer, transfer can be divided into two types: positive transfer and negative transfer. Positive transfer is also called active transfer, refers to the phenomenon that the former type of learning contributes to the latter type of learning; negative transfer, also called inactive transfer, refers to the phenomenon that former type of learning hinders the latter type of learning.

In order to improve the quality of postgraduate training, it is necessary to proceed from the characteristics of cross-major postgraduate students based on the theory of learning transfer, and to promote them to realize active transfer and integrate knowledge system from the following aspects.

(1) Reform of teaching methods. It is very important to fully understand the characteristics of the knowledge structure of the cross-major postgraduate students. While ensuring the normal implementation of the syllabus, we must focus on inspiring students to develop new knowledge and experience from the original knowledge and realize learning transfer. On the other hand, we must also update teaching methods and adjust teaching contents and promote the active learning and adaptive learning of cross-major postgraduate students in order to enable students to quickly improve Professional level by positive transfer.

(2) Improving the curriculum system. One of the most important reasons that cross-major postgraduate students face difficulties is that they do not contact postgraduate majors during the undergraduate stage. So their professional knowledge is weak and easy to be led to negative transfer. Therefore, it is necessary to optimize and supplement the appropriate basic professional courses
based on the curriculum system listed in the current postgraduate student training program and to consolidate the theoretical basis of the cross-major postgraduate students. At the same time, in the courses designated in the training program, the multi-disciplinary integration of professional content should be added to reflect the orientation of compound knowledge transfer and application. On the other hand, in the teaching of professional courses, the graduate tutors should also guide the students to select suitable professional courses to make up for deficiencies in knowledge system according to the requirements of the training objectives and the existing knowledge structure of cross-major postgraduate students.

(3) Improving the learning methods. If cross-major postgraduate students can integrate previous professional knowledge and master's professional knowledge well, find common elements between the two majors, and consciously conduct experience summaries, positive transfer can be promoted. The research tutor should make full use of the transfer conditions, master the knowledge characteristics of cross-major postgraduate students, and combine the common elements of professional knowledge in postgraduate stage and professional knowledge to guide in graduate stage and inspire students to understand the commonality between old and new knowledge and help students get more effective learning.

(4) Strengthening research capabilities. The first is to select suitable scientific research topics that can take into account the existing knowledge of cross-major postgraduate students and new knowledge that is being learned. The second is to organize appropriate cross-professional academic exchange activities to enhance the research and interaction of students in the learning process; The third is to comprehensively use multidisciplinary knowledge and methods comprehensively in scientific research.

(5) Improving the quality of dissertation. The dissertation can reflect students' theoretical foundation, learning ability, scientific research ability, operation ability and creative ability comprehensively. It is not only the most important scientific research achievement of the students in postgraduate stage, but also the most direct reflection of the postgraduates' learning effect. On the one hand, through the positive transfer, the topic with cross-professional nature is selected as the topic of the dissertation; on the other hand, in the process of dissertation writing, the characteristics of the knowledge structure of the graduate students of cross-major postgraduate students are demonstrated from the aspects such as research design, theoretical analysis and model construction, and the final establishment of the students' compound knowledge system is achieved through dissertation writing.

Conclusions

The above countermeasures will help cross-major postgraduate students complete the positive transfer, build a complex knowledge system, and the quality of graduate education can be comprehensively improved.

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References


