

Research on Evaluation Model of Postgraduate Training towards Professionalization

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Abstract: The former evaluation model of postgraduate specialization is relatively simple, and it cannot accurately evaluate the degree of postgraduate participation in specialization. On the basis of systematic research on three models of “I-E-O”, “Change Evaluation Model” and “Input-Output Model” of Postgraduate Quality growth, the behavioral motivation of postgraduate and the process of postgraduate quality growth are analyzed in depth. This paper proposes an evaluation route model based on the process participation of graduate students, which integrates the motive factors of graduate students’ participation into the model, and can better evaluate the degree of graduate students’ participation professionalization.

This study mainly evaluates the growth of Postgraduates in the stage of quality formation by establishing a professional evaluation model for postgraduates. On the basis of systematically analyzing the three models of “I-E-O”, “Change Assessment Model” and “Input-output Model” of Postgraduate Quality growth, this paper puts forward a more effective evaluation route model of postgraduate process participation, which can more objectively and dynamically evaluate the growth of postgraduate specialization

1. Exploration of Graduate Professional Assessment Model System

“I-E-O” holds that the quality growth of postgraduates is influenced by college environment and postgraduate input factors. The environment of colleges and universities is also influenced by the input factors of graduate students. The relationship is shown in Figure 1 [1].

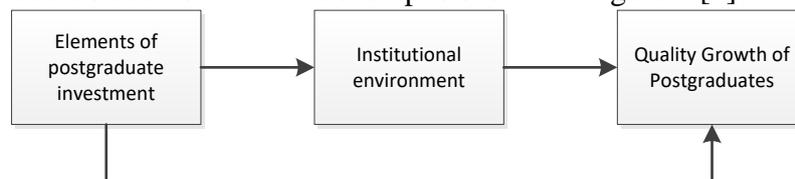


Figure 1 The “I-E-O” Model of Graduate Students’ Quality Growth.

“Change Assessment Model” holds that postgraduate curriculum vitae, postgraduate interpersonal relationships in daily life and their own efforts to improve their ability and quality will directly affect the growth and development of postgraduates. The relationship between the indicators is shown in Figure 2 [2].

The “input-output model” of postgraduate quality growth holds that the degree of postgraduate effort is influenced by the postgraduate’s investment in their own quality growth and the university’s investment in postgraduate growth. The investment of universities in the growth of postgraduates has a direct impact on the growth of postgraduates’ quality, and at the same time, it affects the growth of postgraduates’ quality together with their efforts. The relationship between them is shown in Figure 3 [3].

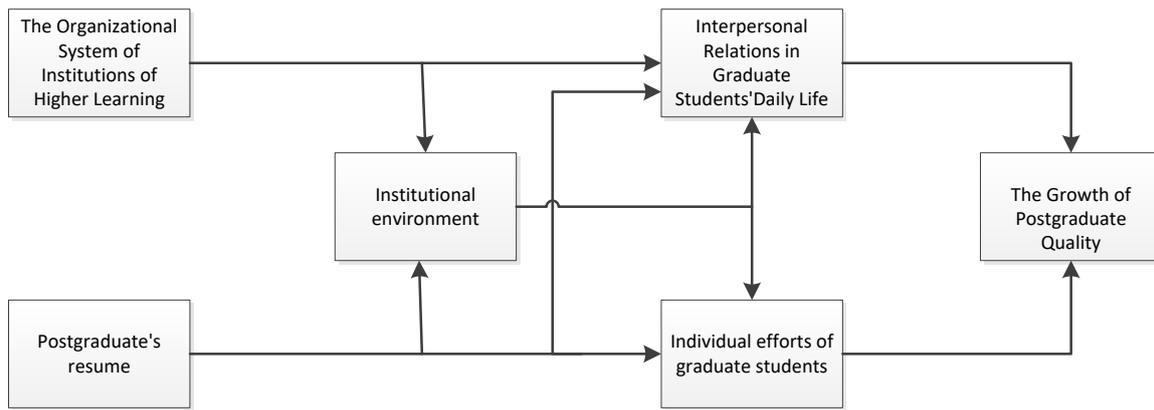


Figure 2 Graduate Quality Growth Change Assessment Model.

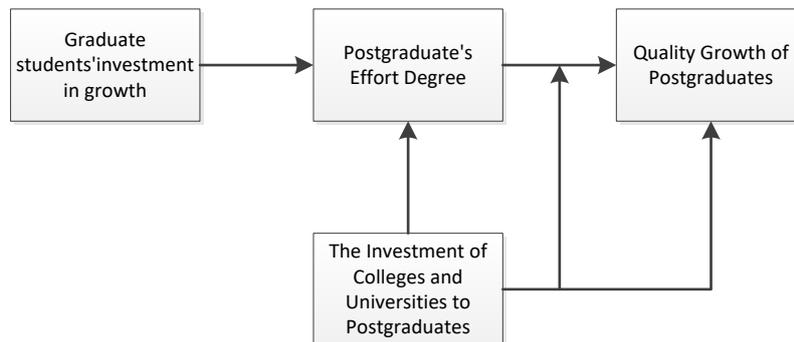


Figure 3 Input-output model of Postgraduate Quality Growth.

On the basis of summing up the above three models, this paper puts forward that the growth of Postgraduate Quality is the common result of environment, individual behavioral motivation of postgraduates and their participation in activities related to their own quality growth, and constructs the route models of “environment”, “postgraduate participation”, “behavioral motivation” and “postgraduate quality growth”, as shown in Figure 4 [4].

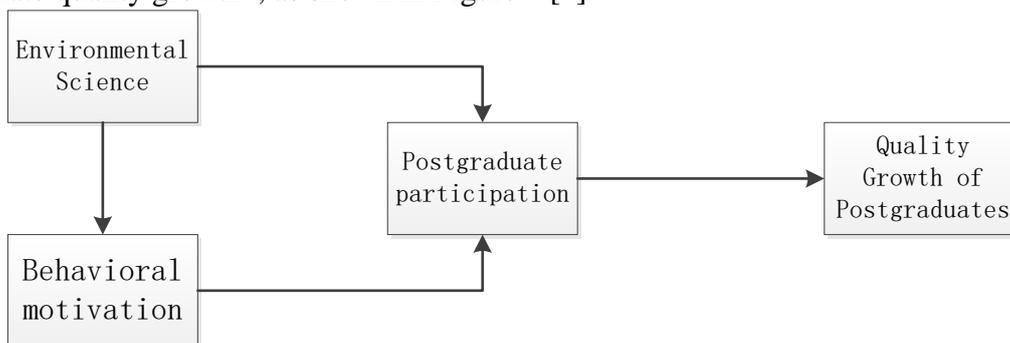


Figure 4 Relational Model of Indicators of Graduate Students' Quality Growth.

2. Exploration of Model Evaluation System

In the model built by the research institute, it is believed that “environment” and “behavioral motivation” have a direct impact on “postgraduate participation”, while “environment” has a direct impact on “behavioral motivation”, and “postgraduate participation” has a direct impact on “postgraduate quality growth”.

“Behavior Motivation” is an index of “Behavior Motivation” which combines the effort degree of individual graduate students in the change assessment model with the input-output model of graduate students’ investment in their own quality growth and the investment of institutions in graduate students’ growth. This is also derived from Liu Hongzhe, Tianjin University, who proposed the “motivation of students’ participation” index in his doctoral thesis “Research on the

Regulating Mechanism of College Environment and Students' Motivation to Self-participation", which is composed of "external motivation" and "intrinsic motivation".

Its "external motivation" index is proposed by behaviorist psychologists as an external factor that can stimulate or suppress the growth of postgraduates' quality, but its "external motivation" pays more attention to the family background, economic conditions, social relations of postgraduates; and the "internal motivation" index pays more attention to the satisfaction of personal interests and wishes. External motivation always exerts a subtle influence on individual motivation. In order to objectively evaluate the indicators of external motivation, the research only regards the environment as an evaluation factor which is conducive to the quality growth of graduate students, ignoring the family background, economic conditions, social relations and other factors of graduate students. The "intrinsic motivation" index is evaluated by the quality of graduate students' participation in promoting their quality growth and accomplishing tasks.

It is believed that the participation of Postgraduates in activities conducive to their own quality growth is a process from passive to active. In the initial stage of postgraduates' participation in activities conducive to their own quality growth, postgraduates' behavior is more influenced by the environment, such as curriculum setting, institutional environment and other factors. The research calls the performance of Postgraduates in the primary stage of activities which are beneficial to their quality growth as the stage of "postgraduate control participation" and also becomes the stage of "control participation". With the increasing participation of graduate students in activities conducive to their quality growth, they will have a relatively complete understanding of such activities. This activity is positively related to the growth of postgraduate quality, and postgraduates themselves will have a sense of identity for this activity. The performance of Postgraduates in this stage is called "postgraduate identity participation" stage, and also become "identity participation". With the deepening of graduate students' participation in activities conducive to their quality growth, they will have a relatively complete grasp of such activities. This activity is positively related to the growth of postgraduate quality, and the postgraduates themselves have some creative practical activities in this activity. The performance of Postgraduates in this stage is called the "integration participation" stage, which also becomes "integration participation". In the three stages of postgraduate participation, "external motivation" plays a major role in the primary stage of postgraduate participation in activities conducive to their quality growth, and at the same time affects the "identity participation" and "integration participation" stages. The stages of "controlling participation" and "identifying participation" are the key stages for graduate students to realize from passive to active, and "intrinsic motivation" plays a leading role in the stages of "controlling participation" and "identifying participation".

According to the above discussion, the relationship between environment, postgraduate participation, motivation and quality growth is shown in Figure 5 [5].

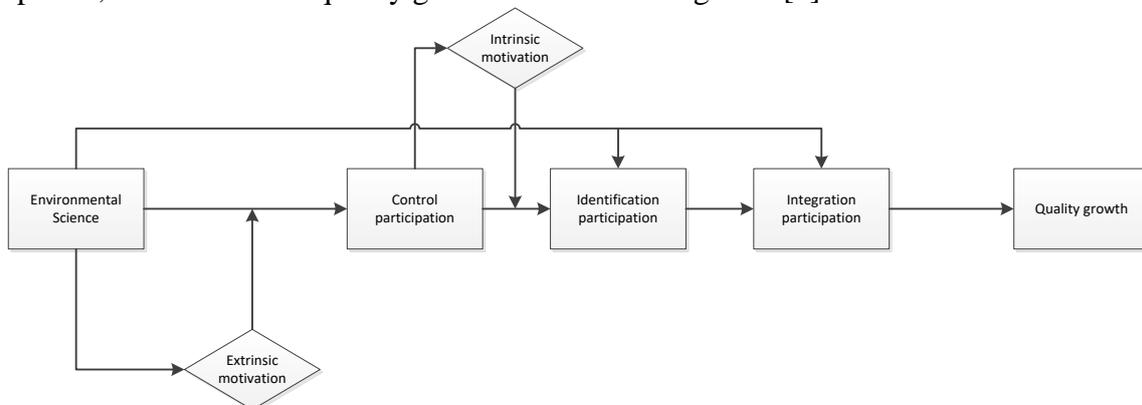


Figure 5 Graduate "Participation" Phased Relational Model of Indicators.

The theoretical model of Figure 5 cannot well assess the relationship between environment, graduate participation, motivation and quality growth, because the indicators of environment and quality growth are not detailed enough, so it is relatively difficult to assess. The study further

divides the indicators of environment and quality growth.

3. Composition of Evaluation Model Index System

3.1 Division of Environmental Indicators

“Environment” refers to the surrounding areas, or the surrounding conditions and conditions, generally divided into soft environment and hard environment. Soft environment refers to the environment other than material conditions, such as policies, regulations, management, services, personnel quality and so on. Hard environment refers to physical environment such as transportation, communication, hydropower facilities (different from “soft environment”). Based on the above concepts, the study considers that the “environment” indicators which can affect the quality growth of graduate students are composed of three indicators: curriculum setting, teacher guidance and cultural incentives.

3.1.1 Curriculum setting

Course settings generally include public basic courses, basic vocational competence courses, core vocational competence courses, comprehensive practice courses, elective courses and extracurricular education and training programs. Public basic courses include political, military, foreign language and other basic courses. Basic Professional Competence Course includes the synthesis of various courses related to professional technology. Core Vocational Competence Course is a practical course focusing on the development of graduate students’ professional competence on the basis of training technology. Selective courses are taught by self-study, and the required number of courses and credits are required for the relevant specialty. Extracurricular education and training program includes the second classroom, psychological training, physical training and other courses.

3.1.2 Instructor guidance

Teacher guidance includes two aspects: tutor guidance and instructor guidance. The tutor’s guidance mainly includes making personalized training plan for graduate students, guiding graduate students to carry out curriculum study, subject research and dissertation writing, and checking the research results. Teachers’ guidance pays attention to innovative education, adheres to integrating theory with practice, guides students to explore the basic characteristics, rules and requirements of professional technology under the new situation, stimulates students’ enthusiasm for training, Cultivates Innovative Thinking and strengthens fighting spirit to meet the needs of army construction and military struggle preparation, and mainly focuses on the teaching methods, contents and means of teachers in the evaluation process.

3.1.3 College Culture

Culture here refers to the material, institutional and spiritual aspects that can promote the quality growth of postgraduates. According to the discipline category and the status and role of the culture in the cultural system of colleges and universities, the culture of colleges and universities focuses on the study of politics, science and technology, morality, fighting spirit, education and training, technical support and so on.

3.2 Division of Graduate Ability and Quality Stage Growth Indicators

It is believed that the growth of postgraduate quality has also experienced three state: Graduate students are in the primary stage of quality growth. Graduate students’ growth in this stage is mainly determined by environment, motivation and their own behavior. This stage is called the cognitive stage of graduate students’ quality growth; in the intermediate stage of Postgraduate Quality development, after participating in activities related to post competence, postgraduates will subconsciously have a sense of identity for the activities they participate in and try to accept it. At this stage, postgraduates have the ability level to compete for their posts, which is called the competency stage of postgraduates; In the final stage of Postgraduate Quality growth, postgraduates

will recognize and participate in post competency related activities in a self-way in the process of participating in activities. This stage is called the stage of postgraduate ability generation and innovation.

3.2.1 Cognitive stage

The research considers that the cognitive stage of measuring postgraduate quality growth includes knowledge level, technology level and consciousness level [6].

Knowledge level refers to all relevant theories, knowledge and methods, which mainly refers to the comprehensive evaluation of the performance of weekday examinations.

Technical level refers to the process of effective application of relevant theories, skills and practices in military specialty, including the acquisition and mastery of specialized theories, the ability to solve practical related professional problems with military theory, and the performance of technical level is mainly evaluated by activities including participation in exercises.

Consciousness is the postgraduate's perception of specialization, the ability to grasp the battlefield and the ability to deal with information in the process of participating in specialization. Professional ethics mainly refers to the political consciousness and will expressed in the process of participating in specialization.

3.2.2 Competency stage

Postgraduate competency refers to having a systematic structure of professional knowledge, being able to engage in research in relevant fields of specialty, and being able to adapt to professional posts [7].

Advanced scientific and technological concepts refer to postgraduates' realistic scientific spirit, pragmatic scientific attitude and rigorous scientific methods. It has certain cultural background, high cultural taste, civilized words and deeds and noble humanistic spirit, strong abstract thinking and logical thinking, and can analyze, summarize, deduce and compare complex things or systems. Good at widely acquiring and effectively utilizing information resources, with information security awareness; can use foreign languages, information networks and other tools to acquire knowledge, can operate and use computers.

Broad information knowledge means mastering applied knowledge such as professional skills under the condition of informationization; multi-disciplinary knowledge reserve can face the challenges of professional fields.

Intelligent in planning, with strong ability to tackle key scientific research issues in the field of application; good at using the theory and methods learned to creatively solve practical problems in the field of specialty.

A strong sense of innovation means that graduate students have the ability to solve practical problems creatively. (Innovative ability) Mainly from the graduate students have done the subject and published papers.

Excellent physical and mental quality means that graduate students have strong physique and abundant energy, basic physical fitness and physique meet the prescribed standards, have healthy personality, can objectively recognize, evaluate and restrain themselves, have excellent emotional, will and character quality, positive enthusiasm, mature and stable, conscious self-control, firm and decisive, firm and flexible.

3.2.3 Ability Generation and Innovation Stage

The stage of ability generation and innovation mainly refers to the ability of graduate students to participate in key projects in other fields on the basis of their competence in relevant professional posts. Professional innovation refers to: facing complex forms, graduate students should innovatively solve problems. The generation and innovation of specialization ability will play an active role in promoting the future career development of postgraduates and seamless docking with the society after they enter the society.

Among the above indicators, the "cognitive stage", "competency stage" and "ability generation and innovation stage" of postgraduates are mainly influenced by the "participation" indicators. The

“curriculum setting”, “teacher guidance” and “college culture” have different effects on the indicators of “motivation” and “participation” at the same time. In order to further analyze the relationship among the indicators of “environment”, “participation”, “motivation” and “quality growth” in more detail and take into account the principle of objective evaluation of the indicators’ parameters, the path model between the two indicators variables is preliminarily described according to the road map of the impact of graduate indicators, as shown in Figure 6.

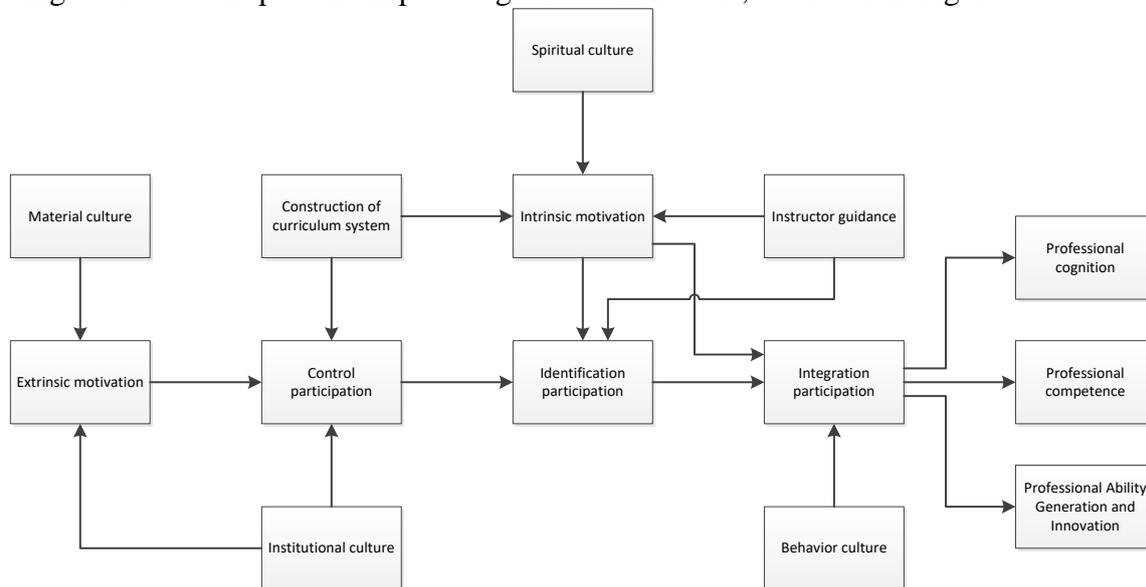


Figure 6 Path Diagram of Indicators of Graduate Students’ Professional Approach Model.

4. Conclusion

Based on the systematic analysis of the three models of “I-E-O”, “Change Assessment Model” and “Input-Output Model” for the quality growth of postgraduates, this paper establishes the path map of each index of the model of postgraduates’ approaching to specialization according to the idea of linear analysis, which lays a foundation for evaluating postgraduates’ specialization ability and posts’ competence after graduation.

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