

GUIDELINES FOR DEVELOPMENT OF HIGH-LEVEL TALENTS
OF UNIVERSITIES IN GUANGXI

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A thesis submitted in partial fulfillment of the requirements for
the Degree of Doctor of Philosophy Program in Educational Administration

Academic Year 2022

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Thesis Title Guidelines for Development of High-level Talents of Universities
in Guangxi

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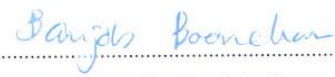
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Abstracts

The objectives of this research were: 1) to study the current situation of high-level talents at university in Guangxi 2) to develop the guidelines for development of high-level talents at universities in Guangxi, and 3) to evaluate the adaptability and feasibility of guideline for development of high-level talents at university in Guangxi were including 4 following aspects: 1) family factors, 2) educational factors, 3) social factors, and 4) personal factors. The sample group of this research were 200 high-level talents from top 20 public universities in Guangxi, determined by Sample size selected according to Morgan's law table. The research instruments were questionnaire, interview form and evaluation form. The statistic to analyze the data were percentage, mean and standard deviation.

The result were found that the current situation of high-level talents at university in Guangxi was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was educational factors, followed by social factors, and family factors was the lowest level. The guidelines for development of high-level talents at universities in Guangxi consisted of four aspects: 1) family factors, Advocate sinology, establish good family customs and rules, and do a good job in all-round education of talents in morality, intelligence, physical beauty and labor. For the growth of talents to set up a good world outlook, outlook on life. 2) personal factors, Should strengthen the cultivation of scientific spirit, academic ethics and personal qualities of high-level talents, and encourage the scientific spirit of being innovative, daring to question and daring to be

the first, as well as the will and perseverance of being unafraid of setbacks and failures. 3) social factors, Introduce incentivizing talent policy to create a favorable environment for talent development in innovation and entrepreneurship, education, medical care, housing and other fields, set goals and plan paths for talent growth, and ensure talent development. and 4) educational factors, Should advocate the all-round development of moral education, intellectual education, physical education, aesthetic education and labor education to lay a solid foundation for the growth of talents. Evaluation of the adaptability and feasibility of guideline for development of high-level talents at university in Guangxi was at high level.

Key words: high-level talents, guidelines for development, universities in Guangxi

ชื่อเรื่อง	แนวทางการพัฒนาผู้ที่มีศักยภาพสูงของมหาวิทยาลัยใน มณฑลกวางสี
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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์ 1) เพื่อศึกษาสภาพปัจจุบันของผู้ที่มีศักยภาพสูงของมหาวิทยาลัยในมณฑลกวางสี 2) เพื่อพัฒนาแนวทางการพัฒนาผู้ที่มีศักยภาพสูงของมหาวิทยาลัยในมณฑลกวางสี และ 3) เพื่อประเมินแนวทางการพัฒนาผู้ที่มีศักยภาพสูงของมหาวิทยาลัยในมณฑลกวางสี ใน 4 ด้าน ประกอบด้วย 1) ปัจจัยด้านครอบครัว 2) ปัจจัยด้านการศึกษา 3) ปัจจัยด้านสังคม 4) ปัจจัยส่วนบุคคล กลุ่มตัวอย่างที่ใช้ในการวิจัยครั้งนี้ ได้แก่ ผู้ที่มีศักยภาพสูงจากมหาวิทยาลัยรัฐบาลชั้นนำ 20 แห่งในมณฑลกวางสี โดยการสุ่มแบบชั้นภูมิ รวมทั้งสิ้น 400 คน เครื่องมือที่ใช้ในการวิจัย ได้แก่ แบบสอบถาม แบบสัมภาษณ์ และแบบประเมิน สถิติที่ใช้ในการวิจัย ได้แก่ ค่าร้อยละ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐานและการวิเคราะห์เชิงเนื้อหา

ผลการวิจัยพบว่า สภาพปัจจุบันของผู้ที่มีศักยภาพสูงของมหาวิทยาลัยในมณฑลกวางสีโดยภาพรวมอยู่ในระดับสูง เมื่อพิจารณารายด้าน พบว่า ปัจจัยด้านการศึกษา มีค่าเฉลี่ยสูงสุด รองลงมาคือ ปัจจัยด้านสังคม ส่วนปัจจัยด้านครอบครัว มีค่าเฉลี่ยต่ำสุด แนวทางการพัฒนาผู้ที่มีศักยภาพสูงของมหาวิทยาลัยในมณฑลกวางสี ประกอบด้วย 4 ด้าน ได้แก่ 1) ปัจจัยด้านครอบครัว ควรสนับสนุนด้านการเรียน สร้างธรรมเนียมและกฎในครอบครัวที่ดี และทำงานบรรพบุรุษ ควรสนับสนุนความสามารถรอบด้าน ทั้งด้านศีลธรรม สติปัญญา ความงามทางกายภาพ และการใช้แรงงาน เพื่อความเจริญงอกงามไปสู่การมองโลกในแง่ดี 2) ปัจจัยส่วนบุคคล ควรเสริมสร้างการบ่มเพาะจิตวิญญาณทางวิทยาศาสตร์ จริยธรรมทางวิชาการ และคุณสมบัติส่วนบุคคลของผู้ที่มีศักยภาพสูง และส่งเสริมจิตวิญญาณทางวิทยาศาสตร์ในการสร้างสรรค์สิ่งใหม่ๆ ถ้าที่จะตั้งคำถามและมีเอกลักษณ์ มีความอดุสาหะ 3) ปัจจัยด้านสังคม ควรแนะนำนโยบายการจูงใจผู้ที่มีศักยภาพสูงเพื่อสร้างสภาพแวดล้อมที่เอื้ออำนวยต่อการพัฒนาให้มีความสามารถในด้านนวัตกรรมและการเป็นผู้ประกอบการ การศึกษา การรักษาพยาบาล และด้านอื่นๆ กำหนดเป้าหมายและวางแผนเส้นทางสำหรับการเติบโตของผู้ที่มีศักยภาพสูง และ

รับประกันการพัฒนาผู้ที่มีศักยภาพสูง และ 4) ปัจจัยด้านการศึกษา ควรสนับสนุนการพัฒนาอย่างรอบด้าน ทั้งในด้านคุณธรรมศึกษา ปัญญาศึกษา พลศึกษา สุขทฤษฎีศึกษา และการศึกษาด้านแรงงาน เพื่อวางรากฐานที่มั่นคงสำหรับการเติบโตของผู้ที่มีศักยภาพสูง ผลการประเมินความเหมาะสมและความเป็นไปได้ของแนวทางการพัฒนาผู้ที่มีศักยภาพสูงของมหาวิทยาลัยในมณฑลกวางสี มีค่าเฉลี่ยอยู่ในระดับสูง

คำสำคัญ : ผู้ที่มีศักยภาพสูง แนวทางการพัฒนา มหาวิทยาลัยในมณฑลกวางสี

Acknowledgements

First of all, I would like to sincerely thank my advisor, Associate Professor Dr. Niran Sutheeniran, my co-advisor, Assistant Professor Dr. Pinyapat Pargudtong and Associate Professor Dr. Jittawisut Wimuttipanyaand, and special thanks to Assistant Professor Dr. Patchara Dechhome and Assistant Professor Sarayuth sethakhajorn for their valuable suggestions and comments that made me clearly aware of the problems and shortcomings of my research. They are very knowledgeable, enthusiastic, kind, optimistic and outgoing. I am grateful to Bansomdejhaopraya Rajabhat University for its emphasis on practical studies. Next, I would like to thank my Chinese advisor, Professor Dr. Dehai Tang, for his rigorous academic quality and pragmatic work style. I am impressed by his academic quality and pragmatic work style. Secondly, I would like to thank to the Graduate School for their care and tireless efforts. Their care and unremitting efforts. Their expertise has taught me different knowledge of education management and humanistic feelings.

In addition, I would like to thank my organization, Guangxi Radio and Television, for supporting me throughout the research and study process. I would like to thank the 10 experts in my expert group, my lovely classmates, my family, and my parents for always encouraging and supervising me and for their great support behind the scenes. These three years have been too much, and it has taken too much to successfully complete my studies. Getting my PhD is a brand-new start in my life and the future is full of hope! Once again, special thanks to all the teachers, colleagues, classmates, and friends who have helped me, criticized me, encouraged me and understood me. Your support is the greatest motivation and help for my study and work.

Thank you all!

Lyu Jun

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Chapter 1

Introduction

Rationale

World level: Competitiveness index of major countries in the world, the United States is far ahead, followed by South Korea in second place, Denmark in third place, Singapore in fourth place, and Japan in fifth place, and the United Kingdom, Israel, China and Sweden in sixth to ninth place. There are five European, central and American countries and five Asian countries in the top ten. Overall, China ranks eighth, a bit behind China in terms of economic size in the world. In recent years, the number of high-level talents has been increasing globally, especially the scale of high-level talents in developing economies such as China and India is growing rapidly. With the acceleration of the globalization process, the mobility of high-level talents has gradually increased. Some countries and regions have adopted a series of policies and initiatives to attract and retain high-level talents. There are differences in the disciplinary structure and distribution of high-level talents in different countries and regions. For example, in the United States and Europe, high-level talents are mainly in natural science, medicine and engineering technology, while in China, high-level talents are mainly concentrated in engineering technology, management and social science. The career choices of high-level talents are becoming more diversified, including self-employment, financial industry, Internet, and other fields. With the increasing competition in the global high-level talent market, high-level talents not only need to have professional skills and knowledge, but also need to have high comprehensive quality and innovation ability to meet the future development trend. : The United States and Europe are among the regions with the highest quantity and quality of high-level talents in the world. The U.S. has many high-level talents and has some of the best universities and research institutions in the world, as well as attracting high-level talents from around the world. According to 2020 data, 46 of the nearly 300 universities in the U.S. are rated among the top 100 universities in the world, with top-tier university such as Harvard University, Stanford

University and MIT enjoying a global reputation. Europe also has many high-level talents with world-class research and innovation capabilities, such as Oxford University and Cambridge University in the UK, the Swiss Federal Institute of Technology, and the French National Institute of Advanced Mining. Europe also has some top research institutions and technology companies, such as CERN, Siemens in Germany, and the University of Vienna in Austria. In general, high-level talents in the U.S. and Europe excel in academic achievement, professional skills, and innovation, and make important contributions to global scientific and technological progress and economic development.

China level: China is one of the countries with the fastest growing number and scale of high-level talents in the world and is constantly improving the quality of high-level talents. According to statistics from 2020, the total number of high-level talents in China has exceeded 9 million, among which the proportion of high-level talents such as overseas returnees, doctoral and master's graduates is constantly increasing. In addition, China has invested a huge amount of money to attract and train high-level talents, such as the "Thousand Talents Plan", "Ten thousand Talents Plan" and a series of other programs aimed at attracting and training high-level talents of internationally leading level. The discipline structure of China's high-level talents is also being gradually adjusted. Focusing on the upgrading of manufacturing industry, information technology, new energy, aerospace, life and health and other fields, several world-class high-tech and innovative enterprises have been formed. At the same time, the Chinese government attaches great importance to the continuous improvement of the environment and conditions for training high-level talents, such as the reform of the selection and selection mechanism, the increase of research funds, the protection of intellectual property rights and other measures, which provide a strong guarantee and support for the growth and development of high-level talents. All in all, the quantity and quality of high-level talents in China are constantly improving, which is expected to make greater contributions to China's scientific and technological innovation and economic development in the future.

Guangxi level: Talents are the primary resource, and talents, especially high-level talents such as high-end talents, strategic talents, and leading talents, are the inner core that determines economic and social development. The economic

aggregate (GDP) of ethnic minority areas in China ranks in the middle and lower reaches for a long time among the 31 provinces and cities in the country. The development and construction of ethnic minorities and ethnic regional economies is an important part of China's modernization drive. Accelerating the economic development of ethnic minority areas is an effective way to narrow the gap between regional developments and achieve common prosperity. The key to development is to rely on talents, and the economic development of ethnic areas cannot do without the guidance and support of high-level talents. Guangxi is in the west, with a small pool of talents, low geographical attractiveness, and limited market power. Compared with the eastern and central regions, Guangxi still has a large gap in regional economic development, scientific research platforms, and regional location. Although preferential policies have been continuously introduced to attract domestic high-level talents to join, under the market-oriented mechanism, developed provinces can provide high-level talents with more advantageous salary and research conditions, and are more able to attract high-level talents to join. Since 2017, Guangxi has successively issued a series of high-level talent policies to promote the gathering of high-level talents in Guangxi. Under the influence of these talent policies, Guangxi has achieved some gratifying results in gathering high-level talents. As of December 2018, Guangxi has 1 academician of the two academies, 7 academician reserve candidates, and national five-category talents (selected talents in the "Hundred Talents Program", selected talents in the "Thousand Talents Program", selected talents in the "Ten Thousand Talents Program", "Yangtze River Talents Program" "Scholar", "Outstanding Youth") 48 people, 45 candidates for the National Million Talent Project, 1587 experts with special national allowances, 187 specially-appointed experts in the autonomous region, 650 candidates for the ten-hundred-thousand project in the autonomous region, 104 Bagui Scholars, autonomous region There are 100 outstanding experts, 168 chairman academician consultants, 100 foreign experts who won the Guangxi Golden Hydrangea Award, and about 200,000 professional and technical personnel with associate senior titles or above. The gathering of high-level talents in Guangxi has achieved certain results, but the task of cultivating high-level talents is still urgent. Guangxi's high-level talents account for a very low proportion of the country's total. Among them, academicians

of the two academies, national millions of talents, and experts enjoying special allowances from the State Council are less than 1% of the national proportion. There are 1,660 academicians of the two academies nationwide, and Guangxi only accounts for 0.06 of the national totals. Those selected for the National Millions of Talents Project accounted for only 0.72% of the national total; talents enjoying special allowances from the State Council accounted for only about 0.87% of the national total. Compared with developed regions in China, the disadvantages are obvious.

He cultivation of high-level talents in Guangxi mainly depends on its own many higher education institutions. At present, Guangxi has a total of 30 undergraduate universities, covering a complete range of disciplines such as science, engineering, agriculture, medicine, economics, management, liberal arts, and education. Among them, Guangxi University and Guangxi Normal University are two famous institutions of higher learning. Since its establishment in 1957, Guangxi University has developed into a comprehensive university with multiple disciplines such as science, engineering, liberal arts, economics, law, and education as the main subjects, and boasts the advantages of art, sports and medicine. Guangxi Normal University is a teacher's college with a long history and close ties with the local government. It has a profound tradition in the fields of education, literature, history and linguistics. According to data released by the National Bureau of Statistics, by the end of 2020, the total number of high-level talents in China had reached 2.529 million, including 242,000 postdocs, and 348,000 high-level talents at or above the provincial or ministerial level. By the end of 2020, there are about 2,700 high-level talents in higher education institutions in Guangxi. Among them, 214 are postdocs, 66 are key discipline leaders, and more than 350 are selected by provincial high-level talent introduction program. Compared with the total number of high-level talents in China, the number of high-level talents in Guangxi still has great room for improvement. Therefore, Guangxi, as an ethnic region, should implement the strategy of "strengthening self-cultivation and introducing talents from outside the region". Guidelines and the introduction of supporting policies and the formation of a long-term mechanism are of great significance for accelerating the cultivation and construction of high-level talents in ethnic areas.

Research Questions

1. What is the current situation of high-level talents of universities in Guangxi?
2. What should be guideline for development of high-level talents at universities in Guangxi?
3. Are the guidelines for the development of high-level talents in Guangxi universities adaptability and feasibility?

Objectives

1. To study the current situation of high-level talents of university in Guangxi.
2. To develop the guideline for development of high-level talents of universities in Guangxi.
3. To evaluate the adaptability and feasibility of guideline for development of high-level talents at university in Guangxi.

Scope of the Research

Population and the Sample Group

Population

400 high-level talents from 20 public universities in Guangxi, including university leaders, professors, associate professors, doctors, etc.

The Sample Group

The Sample Group was 200 high-level talents from top 20 public universities in Guangxi, determined by Sample size selected according to Morgan's law table. High-level talents included university leaders, professor, associate professor, and doctorate teacher.

The interviewee was 10 high-level talents who competent at the level of BCDE as recognized by the Guangxi Zhuang Autonomous Region government.

The Variable

Research Variable

According to the analyzed of related theories and research literature, the main factors affecting high-level talents are as follows:

1. Family factors
2. Educational factors
3. Social factors
4. Personal factors

Definition of Terms

1. High-level talent refers to those who have doctoral degree or equivalent professional ability and qualification in academic, scientific research and education management fields, and have high academic level and innovation ability. They have important contributions and roles in the development, discipline construction and scientific research achievements of the university, and are considered as academic leaders and important leading forces of the university. High-level talents in universities include titles such as professor, associate professor, researcher, and associate researcher, and also some talents who have profound experience in industry or government agencies and are favored by universities to introduce.

2. Guideline refers to is a text that provides specific instructions, suggestions or descriptions to assist in the completion of a certain work or task. This paper "Guidance on the Development of High-level Talents in Guangxi Universities" is a planning and guiding document, which aims to clarify the objectives, policies and measures in cultivating, using and motivating high-level talents in Guangxi universities, promote the construction of high-level talents in Guangxi universities and improve the comprehensive strength and competitiveness of Guangxi universities.

3. Family factors refers to Family is an important environment that influences the growth of high-level talents and has an important influence on the growth of high-level talents. The family factors referred to in this paper are including the family

of origin of high-level talents, the economic status of the family after marriage, the family atmosphere in which individuals interact with other members, family education, family resources and family changes.

4. Educational factors refers to university education. More precisely, it refers to 12-year compulsory education, higher education, continuing education, etc., which are purposefully, Activities that exert influence on the educated in a planned and organized manner to promote their development in the desired direction.

5. Social factors refers to Society is a social system with an organized structure and interconnectedness formed by human activities around production, exchange, distribution, and consumption. Society includes various relationships, norms, values, and institutions among human groups, and is the place where human beings live and develop together. The social factors in this paper refer to the talent policy, resource allocation, research conditions, team support, academic life, academic jurisdiction, etc. faced by high-level talents in the process of growth.

6. Personal factors refers to the internal factors of high-level talents that affect their personal behaviors, thoughts and decisions during their growth, including innate factors such as personal inner quality, academic habits, intelligence, health status, mental state, spiritual rewards, and personal needs.

7. Universities in Guangxi refers to higher education institutions located in Guangxi Zhuang Autonomous Region of China. The levels of education include undergraduate, graduate, specialist, and adult education. Universities in Guangxi offer a variety of majors and disciplines in various fields, involving science and technology, grammar, medicine, education, art and other fields. At present, a group of famous universities have become the representatives of universities in Guangxi, making important contributions to the economic construction, social development and cultural inheritance of Guangxi. The development of Guangxi colleges and universities is of great significance to improve the quality of Guangxi talents and strengthen the local economic development and cultural construction. At the same time, it also provides broad learning space and employment opportunities for students and makes positive contributions to the modernization of Guangxi and the development of China.

Research Framework

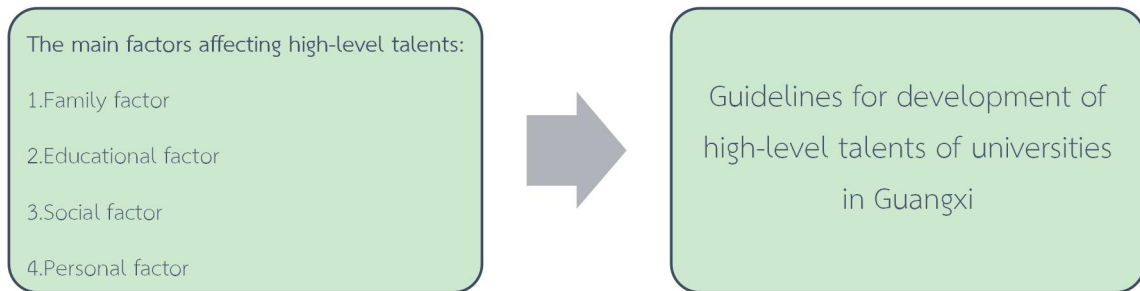


Figure 1.1 Research Framework

Chapter 2

Literature Review

The research in high-level talents of universities in Guangxi, the researcher was analyzed the related theories and research literature.

The details are as follows:

1. Concept of Educational Administration
2. Concept of high-level talent
3. Context of universities in Guangxi
4. Related research

The details are as follows:

Concept of Educational Administration

Educational administration is a series of management activities for educational institutions or educational systems. It aims at the comprehensive planning, organization, coordination, evaluation and control of educational resources, teachers, student education and education quality, to achieve educational objectives and improve the quality of education. Educational administration mainly includes the following three aspects:

1. Education administration needs comprehensive planning. Educational managers need to conduct in-depth research on the environment, educational resources, talent training objectives and other aspects of educational institutions, to determine appropriate educational development strategies, objectives, and plans, so that the educational work of educational institutions can better meet the needs of society and national development requirements.

2. Education administration needs to be organized and coordinated effectively. This includes the scientific allocation and allocation of various resources and elements within educational institutions, the supervision and management of the

implementation of teaching plans and teaching progress, the protection of teachers and students' rights and safety, the formulation and enforcement of relevant policies and regulations, the promotion of all-round development of students and the development of the university, etc.

3. Educational administration needs scientific evaluation and control. Evaluation is mainly to carry out qualitative or quantitative evaluation on the quality, efficiency, and results of the internal work of educational institutions, to scientifically adjust and improve educational activities, and at the same time to provide reference for educational decision makers. Control is another important content in education management, which mainly refers to the improvement and optimization of the internal work of educational institutions, to improve the quality of education and ensure the realization of educational objectives.

There are numerous theories of educational management, among which the theoretical foundations relevant to this study include the following:

Social systems management theory

Since the 1970s, social systems management theory, also known as open systems management theory, has been proposed by German sociologist Luhmann. Social systems management theory considers the university as a subsystem of society and emphasizes that university education management should be integrated with the mother system of society. Social system theory emphasizes the flow of management information, the scientific nature of management, the balanced role between the external environment and the university and calls for the use of excellent science and technology for teaching and learning management. Computer-assisted education management theory also sprouted on this basis and has profoundly influenced modern education management. The growth of talents is closely linked with university and society, and scholars need to fully consider these two factors in university and society in the research process.

Scientific management theory

Scientific management theory is the earliest management idea in the 20th century, which takes efficiency as the key idea management concept and profoundly influences the field of education management. The scientific management theory in

the field of educational management is mainly reflected in four aspects, including the introduction of the concept of educational efficiency, the movement of educational standardization, the movement of educational assessment, and the dual-part teaching system.

Among them, the concept of educational efficiency refers to the key idea of scientific management theory is to improve efficiency, and to reduce production costs and production efficiency as the goal of enterprises. The concept of efficiency is originally a concept unique to business organizations, but along with the full understanding of universities and educational activities, the concept of efficiency has gradually penetrated the minds of educational managers. Looking at education from the viewpoint of efficiency concept, universities should be considered as enterprises, which should exchange the least optimal input for efficient output, and the output results should be measured by achieving educational results. Therefore, to improve the efficiency of education, education managers simulate the experience of business managers and adopt methods such as preferential selection of teachers, expansion of class size, extension of learning time, increase of teachers' class time, development of teaching division, and reduction of education costs. These methods have, to some extent, saved university money and increased educational productivity in the first place.

The education standardization movement means that university have issued standard workbooks for teachers and administrators, teachers' work is measured and monitored by standardized evaluation scales, teacher employment conditions are established in a standardized form, corresponding operational standards are set for effective teaching techniques to support teachers' teaching, and corresponding standardized operational procedures are set for student management and attendance management. Standardization has led to a scientific management process for educational management activities.

The education evaluation campaign refers to the measurement and evaluation activities corresponding to education such as student enrollment, student advancement rate, and teacher teaching efficiency. The two-part teaching system, known as the Gray Plan, combines teaching, activities, experimental work, and social practice activities in one system, dividing students into small groups, allowing them

to work in different areas of the university at the same time, and after a period, switching areas to continue different activities. The two-part system draws on the experience of scientific management theory adequate use of equipment resources, which allows the university to greatly increase the capacity of the number of people and optimize the efficiency of the use of equipment resources. In the current social context, in the process of training high-level talents, there should be clear evaluation criteria, a clear way of measuring and considering talents, and through the influence of various factors, fully enhance the probability of "producing" high-level talents.

Action science theory

The influence of behavioral science management theory on educational management began with the publication of the first book of essays on educational management activities guided by behavioral science theory, "Managing Behavior in Education," in 1957 in the United States. The book was compiled by a group of professors from the National Federation of Professors of Educational Administration, and the 14 papers in the book focused on the possible impact of behavioral science theory on educational management activities. The impact of behavioral science theory on educational management focuses on the following aspects: 1) a multi-latitude vision of educational management research. Behavioral science theory is characterized by the integrated use of knowledge from multiple disciplines such as anthropology, sociology, psychology, political science, and economics to study human behavior. This provides educational managers with certain reference to study educational management from human, social, political, and economic perspectives to improve management theories and change the previous closed vision of education on education and university on university, and this vision also extends to managing university curriculum, staff training, and so on, 2) empirical approach to educational management research. In the past, educational management research has been based on empirical evidence, and has considered what managers should do rather than what managers do. This is not the case with behavioral science, which takes an empirical approach to studying why people behave the way they do rather than the way they do or should not. In the 1960s and 1970s, the field of educational management in some Western countries drew on the empirical research methods of

behavioral science to study teacher motivation, characteristics, and behavior, providing a scientific reference for university management decisions, free from the shackles of empiricism, 3) treating university as open systems. Behavioral science treats the organization as an open system and attaches importance to the study of internal causes of the system and external environmental interactions. Educational management researchers began to view the university as an open system, combining the causes of the university itself with the external environment, studying the influence of social, neighborhood, family, and other environmental causes on the university, and deepening everyone's intimate understanding of the relationship between the university and the external environment.

Interpersonal Theory

Human relations theory refers to the idea of democratic management in the field of educational management and focuses on the multiple social and psychological needs of staff as social beings. The introduction of human relations theory in educational management appeared in the 1930s. Prior to this, democratic management ideas had already existed in the field of educational management in Western countries, represented by the United States, which laid a certain historical foundation for the integration and development of human relations theory. Many professors in the field of educational management point out that interpersonal relationship theory is very instructive for university educational management and call on educational administrators to seriously study interpersonal relationship theory. Interpersonal management theory has been applied to the idea of democratic management in educational management, which indicates that: 1) the role of informal organizations in university should be emphasized, and informal organizations should be regarded as key components in university, and communication should be used to reconcile conflicts and goals between formal and informal organizations, 2) interpersonal relationships between teachers in the workplace should be emphasized and improved to meet the multiple social and psychological needs of teachers as social beings, such as a sense of security, a sense of belonging, respect, 3) teachers' participation in university education should be emphasized. and so on, value teachers' participation in university education management, establish effective

communication channels between principals and staff, discuss resolutions together, set standards together, oppose authoritarian leadership and promote the spirit of democracy; (4) value democratic teaching and learning, pay attention to giving full play to students' initiative and initiative in the teaching process, give students more space for autonomy, and express students' subject status; (5) value democratic supervision, in the teaching process, supervisors should The teacher should not interfere too much with the teacher's teaching. At the same time, the teacher has the right to propose and comment to the superior leadership, i.e., the teacher has the right to supervise the manager democratically. Historically, it seems that human relations theory has had an active and healthy influence on the field of educational management, and many authoritarian university management methods have been replaced by democratic management methods.

Learning Organization Theory

Peter M. Senge, moderator of the Center for Organizational Learning at the MIT Sloan University of Management, introduced the theory of the "learning organization" in his book *The Fifth Discipline*. The "learning organization" is the study of the organization as a system. A system is an organic whole with a certain structure and effectiveness composed of interconnected, interacting elements. According to this theory, the most effective way to study organizations is to consider them as a system. The most effective way to study the university organization is to study the university organization as a system. A learning organization is one that gives full play to the inventive abilities of each group member and strives to form a good organizational learning atmosphere in which learning leads to the realization of individual interests while achieving the common interests of the organization. The learning organization is not about describing how the organization acquires and uses knowledge, but about showing how a learning organization can be shaped.

In a word, education management is an all-encompassing field. The development of high-level talents in colleges and universities studied in this paper also belongs to human resource management and faculty management in education management. A good university must be equipped with certain teachers, and high-level talents are the core strength in colleges and universities. It can bring all-round

advancement to academic research, personnel training, and infrastructure construction of the university. Therefore, the high-level talents promotion of universities in Guangxi studied in this paper can further promote the all-round development of universities in Guangxi.

Concept of high-level talent

High-level talents are a relative concept, and the definition of high-level talents varies in different countries, regions and periods. Scholars in the industry mainly have the following views: First, high-level talents refer to those who are at a relatively high level in various industries and fields or are at the forefront of the discipline and have a great influence on domestic and foreign counterparts. 2. High-level talents belong to the elite part of the talent group and are the special group at the top of the entire talent team structure. They are distributed in various industries and fields such as politics, economy, military, science and technology, and education. And culture. Outstanding talents who have made outstanding contributions to social and economic development and human progress. Third, high-level talents are those who are superior to ordinary talents in quality and contribution. At the same time, the range of high-level talents covered by different fields is not the same. For example, high-level talents in colleges and universities generally refer to outstanding talents with higher academic qualifications and professional titles, who have intelligence, knowledge and skills recognized by peers in their respective disciplines. High-level talents in enterprises refer to the outstanding talents and management experts who are engaged in production and operation and play a key role in the specific practice of technological innovation or reform and development. Fourth, compared with general talents, high-level talents refer to high-end leading talents with strong business ability, scientific research level and strategic vision in specific professional fields and industries. The status of high-level talents in China shall be clearly determined by the Ministry of Human Resources and Social Security, PRC, the Ministry of Education, PRC or its authorized departments. (1) Winners of the National Science and Technology Award of the highest level, academicians of the Chinese Academy of Sciences or the Chinese Academy of Engineering. (2) In the past five

years, he has successively served as the group leader and deputy group leader of the national "863 Program" field expert group, and the chief scientist of the national "973 Program" project. The members of the expert group undertaking the research have served as the technical director of the general group of national major science and technology projects. Teacher, Deputy Director teacher, project leader, Project leader of the National Science and Technology Support (Tackling Key Problems) Plan, host of major projects of the National Natural Science Foundation, Director of the National (key) Laboratory, Director Committee of the Academic Department, "Science Foundation for Outstanding Young People" and "Science Foundation for Innovative Research Groups" of the National Natural Science Foundation (subject leader is required) (3) Humanities.

In 2017, Guangxi Zhuang Autonomous Region classified local high-level talents into ABCDE five categories, namely, A-level talents: Nobel Prize winners (physics, chemistry, physiology or medicine, literature, economics), Wolf Prize winners, Fields Medal winners, Pritzker Prize winners, Turing Award winners, National Top Science and Technology Award winners, academicians of the Chinese Academy of Sciences, the United Kingdom, Germany, France, Australia and other countries, academicians of engineering Academy; B level talents include: (1) Those who currently hold or used to hold the following positions and have been selected for the following programs or received one of the following grants: first-level professors of national institutions of higher learning, members of the Faculty of the Chinese Academy of Social Sciences, group leaders and deputy group leaders (chief scientist of the project) of the National "863 Program". Chief Scientist of National "973 Plan" project, chief technical engineer and Deputy Chief Technical engineer of National Major Science and Technology Projects; (2) One of the following awards (titles) : the first or second prize of the National Science and Technology Award (including the National Natural Science Award, the National Technological Invention Award and the National Science and Technology Progress Award), the Special Award of Outstanding Achievements of the National Social Science Fund, the first prize of monograph category (the first Finalist), etc.; Level C includes: 1) those who are or have held the following positions, have been selected for the following schemes or have received one of the following grants: Project leader of the National Science and Technology Support (Tackling Key

Problems) Plan, project host of the National Natural Science Foundation Major Research Plan, chief expert of the National Social Science Foundation Major projects, candidates of the National "Thousand Talents Plan" innovation long-term project, foreign expert project, entrepreneurship project, leading talents of the National "Ten Thousand Talents Plan" science and technology innovation, science and technology entrepreneurship, philosophy and social science, 2) Winners of the following awards (titles) : Sun Yefang Economic Science Award, the first prize of the Paper Award, the Master of traditional Chinese Medicine, etc.; Level D includes: 1) those who are or have served in the following positions, have been selected for the following schemes or have received one of the following grants: Young top-notch talents under the National "Ten Thousand Talents Plan", young leaders in science and technology innovation, talents in science and technology innovation and entrepreneurship, leaders of innovation teams in key fields, deputy directors in charge of scientific research in State (key) laboratories, National engineering laboratories, National Engineering Technology Research Center and National Engineering Research Center, 2) One of the following awards (titles) : Chinese Government "Friendship Award" expert, World Skills Award, National young and middle-aged experts with outstanding contributions, China Patent Gold Award (patent inventor and designer required), etc.; Level E includes: 1) Candidates who are or have held the following positions, have been selected for the following schemes or have received one of the following grants: One hundred high-level talents training candidates of the National Ten Million Intellectual Property Talents Project, national patent information faculty talents, directors of provincial and ministerial key laboratories, engineering laboratories, engineering technology research centers and engineering research centers, candidates of the "One Hundred Talents Plan" for introducing overseas high-level talents to universities in Guangxi, leading talents of Guangxi Medical high-level Talents Training Plan, 2) Winners of one of the following awards (titles) : national recognition awards or honorary titles in the fields of engineering, economy, education, medical care, planning, design, literature, art, sports, journalism, theory, publishing, etc., experts with government special allowance under The State Council, winners of National Innovation Certificate, etc. From the national level, the top talents generally recognized in China include: Nobel laureates, academicians of China and China,

doctoral supervisors of China, special professors of "Cheungkong Scholars Program", recipients of the National Outstanding Youth Science Foundation, etc.

According to the analyzed of related theories and research literature, the main factors affecting to high-level talents are as following: family factors, educational factors, social factors and personal factors.

Family factors

Family Systems Theory

Family systems theory is a theory of human emotional activity and interactive behavior, which was proposed by Professor Murray Bowen, a famous American psychotherapist, and perfected by him and his assistant Mitchell E. Cole. In explaining human emotional activity, family systems theory uniquely examines the entire family as an emotional unit, treating people as elements in an interconnected structure rather than as self-help psychological entities. Family systems theory has now evolved into a more refined and richer theory, as follows:

The first principle of systems theory is holism, the belief that the whole is greater than the sum of its parts, which means that the sum of all the parts together does not produce the whole, because the whole system comes from the interaction between the parts. If there is no interaction, there is no such thing as a system.

Second is family relationship, which focus of institutions is relationship, and any family institution is made up of interconnected relationships among family members. Relationships exist between every two family members, such as marital relationships, parent-child relationships, and hand-to-hand relationships. When studying the family system, one must pay attention to the different connections between the members and the ways in which they interact with each other. It is a very complex network of interactions. Each person is both a part of the whole and a whole and separate individual with a unique personality; He is influenced by the whole family, and he represents both the individual and the family.

Third is the family system, like all systems, communicate with each other through a feedback process known as a feedback loop. In a closed home system, the feedback loop is negative. By negative feedback, the system is fixed. Positive feedback can break the fixation of the system by holding new beliefs and advocating innovative thoughts and behaviors against the old rules. Positive feedback challenges toxic dogmatic assumptions and triggers change in the family rather than sticking to rules.

Ecosystem theory

The ecosystem theory of the family is based on Bronfenbrenner's ecosystem theory and applies it to family and marital relationships. It believes that the family is an ecosystem formed by the interaction of many factors, including the individual, the interaction between family members, the internal and external environment of the family.

According to the ecosystem theory of the family, the family is made up of many interacting components, and changes in any one of them can have an impact on the entire ecosystem. Family members are an important part of the system, and their interaction and communication with each other affect the operation of the whole family system. In addition to the interaction between family members, there are internal factors of the family and external environmental factors that play a crucial role in the entire ecosystem. For example, the family's ability to bear pressure, family economic status, family cultural background and so on will affect the stability of the family system.

In the ecosystem theory of the family, the behavior and feelings of family members are seen as responses to the whole family, and thus affect the stability and health of the family ecosystem. If the behavior and feelings of one family member change, then the entire family system may be broken and effective measures need to be taken to repair and maintain its balance.

Zhong Hua (2015) believes that the influence of family factors on the growth of talents has four characteristics: directivity, comprehensiveness, subtlety and longevity, and that family environment affect the formation of talents' quality, ideology, and inner tendency.

Zhao Yun (2014) focused on the influence of family factors on the growth and career development of female professionals and technicians from the perspective of gender, taking senior professionals and technicians in the third Survey on the status of Chinese Women in Heilongjiang Province as the research object. The research results show that although a good family background and strong support from spouses are conducive to the growth of female technical professionals, childbirth and heavy housework have also become the main factors hindering the career development of female technical professionals.

In conclusion, family is an important environment that affects the growth of high-level talents and has an important influence on the growth of high-level talents. Therefore, this paper will absorb the research results of family-talent growth related theories, the family of origin of high-level talents, post-marriage family yet situation, including family atmosphere, family education, family resources and family changes, etc., to conduct a comprehensive study and explore in depth the significance of family influence factor settings on high-level talent growth theories.

Educational factors

Process education theory

Process education originated from Alfred North Whitehead's (1861-1947) philosophical theory of process education, which emphasized the role of practice in education, the stages and continuity of the educational process, and the need for the stages of the teaching process to consist of well-controlled units of practice, in order to better achieve educational goals. The way in which each component unit of the teaching process relates to each other and interacts with each other can provide important reference significance for the realization of the quality control of the whole teaching process. German pedagogy emphasizes the key role of process education and control in education from the perspective of cybernetics, and strengthens the goal specificity and behavioral accuracy of teaching process from the perspectives of system control, target control and decomposition, systematic control of many quality factors and resource supply problems, and systematic effect of path.

The specific points of process education theory can be divided into the following points:

First, the essence of education. The essence of education is an open, dynamic process of creation and risk-taking. Education is an art that teaches people to use knowledge to understand real life and create life, to use knowledge to shape life and the world, and to produce events to realize self-development.

Second, educational purpose view. The highest purpose of education is to gain freedom and wisdom, to teach students how to create life and shape the world with knowledge. To cultivate a whole, intelligent person who combines a wide range of culture with professional knowledge and a can-do spirit.

The third is the process view of teaching and learning. Whitehead believes that the world is a process of constant change and dynamic development, so it is necessary to pay attention to the process of education and grasp the rhythm of education. On the one hand, he divides the education process into H stages: romance stage, precision stage and comprehensive application stage. On the other hand, he emphasizes the art of education while enriching the art of teaching. Only in this way can students enjoy the process of learning and stimulate interest, curiosity, desire, interest, romantic adventure, imagination, etc. Harvest the right crop in the right season.

Fourth, the intellectual perspective of education. It asserts that knowledge develops and changes dynamically, and is dynamic rather than rigid, unchanging, and inflexible. Knowledge is derived from real life, and the way to acquire it is to explore the world and take conceptual adventures through practice and creative thinking, as well as one's own rich imagination. At the same time, the relationship among technical education, humanities education and science education should be handled properly to achieve the best balance among the three.

Fifth, the concept of development of education. We should strike a balance between innovation and conservatism, between change and coincidence, and between freedom and discipline. In education, there is no lack of order, not to mention creativity and risk-taking. It is in this interaction between innovation and

conservatism, change and order, freedom, and discipline that the positive development of education has been realized.

Educational talent theory

The basic standards for cultivating talents are: "having ideals, morality, knowledge and discipline".

That is, qualified talents, specialized talents, and outstanding talents. University education should train many qualified personnel, train and select specialized personnel for the four modernizations, and then train outstanding personnel who can make significant contributions and create through development.

Humanism in education

The theory of humanism education is an idea that advocates examining the characteristics and laws of education from within education. Education is the cause of cultivating people and educating people to become real people, which is not only the starting point of education, but also the process of education and the end of education. Without the cultivation of human beings, education would cease to exist. Therefore, education must be "people-oriented", respecting, understanding, caring and trusting every student. This is the core concept of people-oriented education.

Starting from this core thought, the essence of humanistic education law is also reflected in the following three closely related basic meanings:

First, education is to discover the value of human beings, and any life in the world has a certain value. The so-called value of a person is the rightful status, role and dignity of a person. This point of view is expressed in our ancient "man's theory of value". "Noble" means valuable, and "noble theory of man" means the theory of value of man. The value of man is first shown in that man is neither animal nor machine, and man is man. Therefore, everyone must both affirm that he is a human being and treat others as such. Secondly, it expresses that man is the only great power to transform nature and promote society. Therefore, man should become the master of nature and society. Finally, it also expresses that everyone should have their own due dignity and strive to obtain their due status and play their due role. However, the above human values cannot be discovered and recognized at a stroke.

Historically, in primitive societies, due to the extreme backwardness of culture, scientific knowledge and production technology, even human existence was often hindered by external and objective forces. Therefore, human beings always felt weak and could not see their own existence and due status and role. But in feudal society, the value of man is still subject to the serious nephew of feudal rule, although there are many educated people calling for the value of man, but it has not been fully discovered and recognized. The capitalist society has further discovered the value of man, but it is also subject to various disturbances and destruction. For example, some scholars animalize human beings, degrade human beings to machines, attempt to replace human studies with animal studies, and cancel the exploration of human beings with machine simulations. From this point of view, the value of human beings has not been fully discovered until now, nor has it been fully and deeply understood. It is necessary to resort to education. That is to say, the real meaning of education is to guide people to discover the value of a person and the value of an individual, to assert the subjective status and role of a person.

Secondly, education is the realization of human potential. Everyone is born with a certain potential, and everyone desperately wants to bring his potential into full play. This is the consensus of many thinkers and educators throughout the ages. Human potential is not something mysterious. It is the mark that separates humans from animals. It is the possibility that people can develop into human beings. This potential does not exist in animals, so even if great efforts are made to educate them, they can never be trained to become adults. Human potential is mainly manifested in two aspects: moral potential and intellectual potential. The "good knowledge and good ability" mentioned by Mencius refers to this potential, that is, "good knowledge" is the intellectual potential of human beings, it does not mean that they are born with knowledge and do not learn "good ability" is the ability of human beings. It does not mean that a person is born with knowledge and does not learn, nor does it mean that a person can do anything without practice. It can be said that the theory of potential in ancient China was only explicitly put forward by Mencius and has been deepened and developed in the later generations. In the West, contemporary humanist educators and psychologists have all assumed that human

beings are inherently endowed with the potential for excellence, and their educational thoughts and entire psychological systems are based on this assumption.

Human potential only offers the possibility of human development, but it is never realistic. To turn this possibility into reality, people must be educated. If education is abandoned, this possibility will never be transformed. Take intellectual potential for example, it is now recognized at home and abroad that there are three levels, namely, exceptional genius, medium and low normal and low ability. These three levels should be said to be innate. The task of education is to create the right conditions for these three potentials, for example, to create conditions for exceptional people to give full play to their exceptional intellectual potential, otherwise, if education fails to keep up, genius will be repressed or even annihilated, to create conditions for exceptional people to develop their normal intellectual potential, if the exceptional intellectual potential can be fully developed, Then it is not only of great use to him personally, but also of great benefit to the whole nation. It will also be of great benefit to the nation. As for the poor performers, they can also be trained to be self-reliant if they receive proper education. It follows that the true meaning of education is to bring out the inner potential of people so that they develop the appropriate moral behavior and intellectual capacity to become real people, to become "capital" people.

Thirdly, education is the development of human personality. Everyone has his own personality and should have such a personality. Only those who show the unique color of their personality can become the real subject. When it comes to personality, there are different opinions in both educational and psychological circles. First, many people equate personality with individual differences. We think of personality as both common and different. As the saying goes, "People's hearts are as different as their faces." Many commentators often use this saying to emphasize differences in personality. In fact, people's faces are first "common" and then show their "little differences" against the "common" background. This statement shows that personality is the unity of commonness and difference, and shows that there are different views on personality. For example, the Soviet Union believed that personality is the combination of personality inclination and psychological

characteristics. While we hold the personality theory at the core of the world view, that is, the human personality is a kind of world view personality psychological characteristics, including intelligence, ability, temperament, character. Accordingly, the so-called development of personality is to cultivate a person's world view and form the psychological characteristics of a person's personality.

It must be pointed out that the development of human personality should not be spontaneous but should be cultivated through purposeful and planned education. It is based on this point that many far-sighted thinkers and educators in ancient and modern times regard the development of human personality as the fundamental purpose and task of education. From ancient Greece to the pre-Qin period in China, the idea of cultivating the unity of morality and wisdom and the harmony of body and mind was put forward. Marxism emphasizes that all human personalities should be fully and freely developed. It should be pointed out here that, in the first place, some comrades equate the development of personality with the all-round development of education, arguing that it is impossible to develop one's personality if one wants all-round development. In fact, the so-called all-round development of Marxism means the development of human personality. Personality is the object and place of all-round development. Secondly, some comrades confuse the development of personality with the cultivation of special talents. We believe that the development of strengths is only a small part of the development of personality. To develop a personality, we must not only cultivate its strengths and develop its characteristics, but also develop its commonalities. This means that in personality education, we should present both common educational requirements and different educational objectives for students. To sum up, the real meaning of education is to develop a person's personality and make a person a "harmonious person", a "complete person" and a "fully developed person".

Education promotes the development of people's subjective consciousness and abilities, promotes the full development of individual differences, and enables people to give full play to their potential and uniqueness in interests, ideals, beliefs, world views, abilities, temperament, character and so on. Education also focuses on stimulating creativity, promoting the realization of individual values, and promoting

the development of the whole person. In most cases, the knowledge and experience gained from higher education can be a catalyst for one's success. It has been found that a researcher's higher education background is closely related to advancement in his or her title.

Tian Ruiqiang et al. (2013, p.121-125), based on the biographical data of 233 Chinese scientists highly cited by ESI, used survival analysis to test the influence of factors such as the country of doctoral graduation on the promotion of Chinese scientists' professional titles.

Zhang Yazheng, Zhao, Wei and Peng Jie (2012, p.98-101) took the winners of the China Outstanding Young Scientists Fund in the field of Energy as the research object, analyzed their educational factors, and investigated the general rule of talent flow in the growth process of high-level scientific and technological talents, as well as the different characteristics of the academic output of high-level scientific and technological talents in different educational environments. It is found that with the improvement of education level, research subjects tend to flow to famous universities and research institutions with better research environment and faculty at home and abroad. In the field of energy, the per capita academic output of scientific and technological talents cultivated by Chinese universities is higher than that of foreign universities, but the quality of papers is still different.

Xiao Mingzhi, Tang Xiufeng et al. (2018,P.106-110), based on the life data of 146 scholars in the field of philosophy and social sciences who were selected as distinguished professors of Zhang Kong Scholars from 2011 to 2016, used the multiple linear regression model to analyze that the graduate university level and the leadership experience of national and provincial scientific research projects significantly affected the selection rate of distinguished professors of Zhang Kong Scholars.

Qu Zhenyuan, Han Xiaoyan, Han Zhenhai and Hou Jiwu (2008,P.53-58) summarized and analyzed the higher education experience of academicians of two major Chinese Academy of Sciences, and put forward some suggestions from the perspective of talent training, believing that the training of top innovative talents is

not only the university itself, but also related to educational factors such as basic education, family education, social education and other activities. It is argued that the cultivation of top-notch innovative talents not only lies in colleges and universities, but also is related to educational factors such as basic education, family education, social education and other activities.

In conclusion, the growth of high-level talents can not be achieved without education, Education is one of the main channels to cultivate high-level talents, and the education translation factor mentioned in this paper refers to the 12-year compulsory education, higher education, overseas education and continuing education received by high-level talents, which are purposeful, planned and organized activities to exert influence on the educated, through learning and receiving education, individuals can acquire knowledge, skills and qualities, and then become high-level talents. In this paper, we will use the above educational theories to go into the significance of the setting of educational influences on the growth theory of high-level talents.

social factors

Harriet Zuckerman (1979, p.86-89) studied 92 contact scientists who had won the Nobel Prize in Science between 1901 and 1972. Based on the analysis of a large number of interview data and background materials, she found that external factors such as family learning tradition, socioeconomic background, mentoring relationship and research network had a significant impact on the growth of high-level talents, and proposed an advantage accumulation theory that could effectively explain the growth process of talents.

Ma Chao et al. (2019, p.79-83) explored the regional distribution pattern of research output in computer software and applied disciplines. By measuring Gini coefficient, centrality index, global Moran index, local autocorrelation index and Pearson correlation coefficient, they found that there were regional distribution differences in the output of core journal articles in the field of computer science, and North China, the Yangtze River Delta and Central China became the most productive

regions in this field. The spatial clustering effect and autocorrelation between regions are significant, and the high value clustering is obvious in municipalities directly under the Central Government and some provincial capitals.

Niu Heng and Zhou Jianzhong (2012, p.74-78) selected the "Hundred Talents Program", "Changjiang Scholars" and "Outstanding Youth", the three highest-level scientific and technological talent programs in China. The results show that the selected subjects of China's high-level scientific talents Program are less female, and the selected subjects are gradually older. They are mainly born in Jiangsu and Zhejiang, and mainly study in the United States, Japan, Germany and the United Kingdom. The correlation between different talents is high, and the Matthew effect is significant.

Zheng Yanling (2018, p.87-89), aiming at the gap between the quantity and quality of high-end talents in western China and the actual needs of economic and social development in ethnic minority areas in western China, proposed the teaching concept of "promoting employment through innovation" in order to improve the efficiency of entrepreneurship and employment and promote the economic development of western China. The teaching concept of "seeking employment through innovation" is put forward at different levels to improve the efficiency of entrepreneurship and employment, so as to promote the economic development of the western region.

Wu Tingting et al. (2005, p.78-83) compared and analyzed more than 800 academicians of Chinese Academy of Sciences and 600 academicians of Chinese Academy of Engineering before 2002, and concluded that the growth of senior scientific and technological talents requires more cultural accumulation and certain economic basis and material conditions.

In conclusion, Social factors refers to Society is a social system with an organized structure and interconnectedness formed by human activities around production, exchange, distribution, and consumption. Society includes various relationships, norms, values and institutions among human groups, and is the place where human beings live and develop together. The social factors in this paper refer

to the talent policy, resource allocation, research conditions, team support, academic life, academic jurisdiction, etc. faced by high-level talents in the process of growth.

Personal factors

Tuimon (1997, p.63-65) analyzed the results of 150 of the most successful and least successful geniuses and found that the key factors determining the level of achievement of geniuses were not differences in intelligence, but individual personality factors, including rationalism, interest, intense commitment, inner freedom, persistence, perseverance, and doubt.

Rocon (2006, p.78-81), on the other hand, analyzed the personality traits of 30 American scientists in the field of medicine and found that governance structure, desire for knowledge, creative imagination, flexibility, observation ability, professional passion and perseverance had an impact on creativity.

Van Dalen (1999, p.9129-131) analyzed in detail the relationship between the academic growth and scientific achievements of Nobel Prize winners in economics in the 20th century and their age, and put forward their general characteristics: they usually start early; Have an independent mind; Usually produce the most important creative work between the ages of 29-38; The age of innovation is slightly younger than Nobel physicists and much younger than Nobel laureates in chemistry, medicine, and medicine; Most basic research is done alone.

Feist (2006, p.115-118) chose finalists in the Westwood Science Competition and members of the National Academy of Sciences as comparative samples to study whether talented teenagers would grow into outstanding scientists in the future, and the results showed that age was an important predictor of early life output, as well as lifetime output, for science and technology talent.

Jalil and Bouettif (2005, p.126-128) selected 20 Nobel Prize winners and conducted an E-mail questionnaire to reveal the influence of these factors on the development of Nobel Prize winners from the perspectives of learning style, family and social relations, work attitudes, etc. Finally, they summarized the common characteristics of these Nobel Prize winners: developmental and systematic,

diversified and multi-skilled, interactive, collaborative, philosophical and empirical sensitivity.

Karazija and Momkauskaite (2004, p.76-79) made a statistical analysis of 162 Nobel Prize winners in physics in the 20th century from the perspective of econometrics, and found that: there are differences in the probability of theoretical physicists and experimental physicists, theoretical physicists are more likely to win the prize; And that the average time between discovery and recognition for Nobel laureates in physics was 15.1 years. The average time between Nobel laureates' scientific discoveries and recognition was 15.1 years, with a normally distributed relationship.

Van Gobber (2010, p.93-95) identifies qualities that young innovators should possess: a pioneering spirit, a clear sense of politics and law, a sense of responsibility to humanity, a sense of competition, cooperation and timeliness, and a willingness to question rather than trust authority. In Bacon on Life, the philosopher Francis Bacon pointed out: "Man's actions are mostly determined by habit. All nature and promises are not as useful as habits ". People's habits to a large extent determine the height of life. Good habits are the booster of personal growth. Besides, character is closely related to the development of one's career. Scientific and technical talents must have the character of perseverance and perseverance.

Song Cheng, First Class (2011, p.156-158) believes that the growth of high-level talents cannot be separated from the combined effect of internal conditions and external environment.

Gao Yan (2008, p.97-99) also proposed that among the non-intellectual factors of internal factors, motivation is the premise, interest is the foundation, will is the key, and good comprehensive quality is the guarantee. Luo Hongtie took the inner quality as the basis for the growth of high-level talents, and divided the growth of talents into growth stage and display stage. Talent growth needs accumulation and a certain amount of time for learning and exploration.

Zhao Hongzhou (1979, p.93-97) found the optimal age rule in his research on the social age of scientists. He found that a person's memory tends to decline with

age after a certain age, whereas his understanding will improve with age. Therefore, there is a period when both understanding and memory are better, which is called the "golden period". Therefore, there is a period when both understanding and memory are better, called the "golden age", during which people's creativity is strongest and scientists are most likely to contribute to the "optimal age zone".

In conclusion, personal factors refer to living individuals who are in a certain social relationship and have differences in social status, ability and function. The personal factors referred to in this paper refer to the internal factors, innate intelligence, psychological state, health status, personal rewards, personal honors and other factors embodied by high-level talents in colleges and universities in the university environment.

Context of universities in Guangxi

Guangxi Zhuang Autonomous Region is a provincial-level administrative region in China with many higher education institutions. At present, there are 38 undergraduate institutions in Guangxi, including 26 public ones and 12 private ones. In recent years, the universities in Guangxi have developed rapidly, especially the comprehensive universities, which have made new achievements in discipline construction, personnel training, scientific research and opening to the outside world. Guangxi University is the leading comprehensive university in Guangxi Province. In terms of discipline construction, its disciplines such as "Utilization and Protection of Biological Resources", "Environmental Science and Engineering" and "Chemistry" rank in the top 1% of ESI international rankings. At the same time, after years of efforts, the university has formed a discipline system with literature, law, management, chemistry, and life science as the core. Guangxi Medical University: Guangxi Medical University is a comprehensive university focusing on medicine. Its disciplines of "Pharmacy", "Clinical medicine", "Public Health and preventive medicine" enjoy a good reputation in China. In addition, Guangxi Medical University has established close cooperative relations with Guangdong Medical University, the Fifth People's Hospital of Nanning and other famous medical institutions at home and abroad, providing important support for the teaching, scientific research and personnel training of

Guangxi Medical University. Guangxi University of Science and Technology (Guangxi University of Science and Technology) is in Nanning City,

Guangxi Province is a comprehensive university focusing on engineering. The university is in the forefront of materials science, mechanical engineering, chemical engineering, electronic information, and other disciplines in China. It also has a good performance in emerging disciplines such as computer science and new energy. Overall, universities in Guangxi have made remarkable progress in discipline construction, personnel training and scientific research. At the same time, they are gradually expanding their opening to the outside world, strengthening exchanges and cooperation with universities at home and abroad and making positive contributions to the cultivation of more high-quality talents and the promotion of local economic and social development. The 38 undergraduate institutions in Guangxi are as follows:

Table 2.1 Universities in Guangxi

No	Name of university	Cities	Level	Type
1	Guangxi University	Nanning	Undergraduate	Public
2	Guangxi University of Science and Technology	Liuzhou	Undergraduate	Public
3	Guilin University of Electronic Science and Technology	Guilin	Undergraduate	Public
4	Guilin University of Technology	Guilin	Undergraduate	Public
5	Guangxi Medical University	Nanning	Undergraduate	Public
6	Youjiang Medical College for Nationalities	Baise	Undergraduate	Public
7	Guangxi University of Traditional Chinese Medicine	Nanning	Undergraduate	Public
8	Guilin Medical College	Guilin	Undergraduate	Public
9	Guangxi Normal University	Guilin	Undergraduate	Public

10	Nanning Normal University	Nanning	Undergraduate	Public
11	Guangxi Normal University for Nationalities	Chongzuo	Undergraduate	Public
12	River Pond Academy	River Pool	Undergraduate	Public
13	Yulin Normal University	Yulin	Undergraduate	Public

Table 2.1 Universities in Guangxi (Continue)

No	Name of university	Cities	Level	Type
14	Guangxi Institute of Art	Nanning	Undergraduate	Public
15	Guangxi University for Nationalities	Nanning	Undergraduate	Public
16	Baise Academy	Baise	Undergraduate	Public
17	Wuzhou College	Wuzhou	Undergraduate	Public
18	Guangxi Normal University of Science and Technology	Guests	Undergraduate	Public
19	Guangxi University of Finance and Economics	Nanning	Undergraduate	Public
20	Beibu Gulf University	Qinzhou	Undergraduate	Public
21	Guilin Institute of Aerospace Industry	Guilin	Undergraduate	Public
22	Guilin Tourism Institute	Guilin	Undergraduate	Public
23	Hezhou College	Hezhou	Undergraduate	Public
24	Guangxi Police Academy	Nanning	Undergraduate	Public
25	Guangxi Agricultural Vocational and Technical University	Nanning	Undergraduate	Public
26	Guangxi Vocational Teachers College	Nanning	Undergraduate	Public

27	Nanning College	Nanning	Undergraduate	Private
28	Beihai College of Art and Design	Beihai	Undergraduate	Private
29	Liuzhou Institute of Technology	Liuzhou	Undergraduate	Private
30	Xiangsihu College, Guangxi University for Nationalities	Nanning	Undergraduate	Private

Table 2.1 Universities in Guangxi (Continue)

No	Name of university	Cities	Level	Type
31	Guilin College	Guilin	Undergraduate	Private
32	Shiyuan College, Nanning Normal University	Nanning	Undergraduate	Private
33	Sines University of New Medicine, Guangxi University of Traditional Chinese Medicine	Nanning	Undergraduate	Private
34	Guilin Institute of Information Technology	Guilin	Undergraduate	Private
35	Nanning Institute of Technology	Guilin	Undergraduate	Private
36	Guangxi University of Foreign Languages	Nanning	Undergraduate	Private
37	Beihai College, Beihang University	Beihai	Undergraduate	Private
38	Guangxi City Vocational University	Chongzuo	Undergraduate	Private

According to data released on the official website of the Guangxi Zhuang Autonomous Region People's government, by the end of 2020, Guangxi had introduced or incubated more than 127,000 high-level talents, including more than 2,200 under the "thousand talents Plan" and "Ten thousand talents Plan". In addition,

Guangxi has also implemented several talent programs, such as the "Double Hundred Plan", the "Mass Entrepreneurship and Innovation Talent Support Plan", and the "Guangxi Specially Recruited Experts Plan", to constantly increase the efforts of talent introduction. Compared with the whole country, the number of high-level talents introduced in Guangxi needs to be improved. According to the 2020 National high-level Talent Development report, the total number of high-level talents in China has exceeded 9.3 million, including 524,000 under the "Thousand Talents Plan". The number of high-level talents in Guangxi is small compared with these figures. However, in recent years, the Guangxi government has continuously increased its efforts in talent introduction and training, actively promoted the construction of "Guangxi Southbound Channel", strengthened the cooperation with ASEAN countries, Hong Kong and Macao, and attracted more high-level talents to Guangxi. The implementation of the high-level talents training plan in Guangxi Zhuang Autonomous Region has provided a new platform for Guangxi to independently train high-level talents. Up to now, Guangxi has trained a large number of high-level talents through the "100 high-level Talents Training Project", "1,000 high-level Talents Training Project", "Mass Entrepreneurship and Innovation Talent Support Plan", "Guangxi University Talent Introduction Plan" and other projects.

Among them, Guangxi University has a large scale of talent training, and has established a group of high-level talents with international level, including academicians of the Chinese Academy of Sciences, national specially invited experts, Cheungkong Scholars, "Cheungkong Scholars Specially Invited Professors" of the Ministry of Education, National Jieqing and other talents. In addition, Guangxi Medical University, Guangxi Normal University, Guangxi University of Science and Technology and other universities are also actively training high-level talents. At the same time, Guangxi also encourages enterprises to strengthen personnel training, improve their independent innovation ability, and promote economic development.

Table 2.2 Comparison table of six types of high-level talents in Guangxi and other provinces from 2013 to 2017

Province Title	Academician of the Chinese Academy of Sciences	Academician of Chinese Academy of Engineering	Distinguished Scholar of Changjiang	National Outstanding Youth	National youth 1000 program inductees	National Outstanding Youth Awardee	Total
Beijing	60	56	222	355	546	619	1858
Shanghai	12	9	93	143	395	257	909
Jiangsu	6	6	69	79	228	194	582
Guangdong	1	6	30	48	221	113	419
Zhejiang	4	3	26	40	159	109	341
Hunan	2	8	12	16	32	39	109
Yunnan	0	0	2	6	12	14	34
Guizhou	0	1	2	4	5	2	14
Guangxi	0	0	4	1	1	2	8

The above is the number of academicians of the two academies, Changjiang Scholar Distinguished Professors, National Jieqing recipients, National Youth Thousand Program entrants, elected in their provinces in mainland China from 2013-2017, The

number of high-level talents with greater influence in academic circles, such as national outstanding youth recipients.

Note: The original list comes from the websites of the Chinese Academy of Sciences, the Chinese Academy of Engineering and major national ministries and commissions; the statistics are strictly in accordance with the provinces where the elected units of various talents are located; the 2017 National Jieqing is the data for public announcement.

Related research

The growth of high-level talents has experienced many processes of "non-talents - quasi-talents - potential talents - apparent talents". Transformation, and in the process of creation/innovation, often experience "creation - failure - re-creation - re-failure" -- this multiple transformation, repeated tortuous process of growth, in fact, is the process of high-level talent generation, and the key factors of high-level talent generation are: long-term learning - practice - transformation - reflection learning - integration - re-practice, in the gradual realization of the repeated spiral process, Constantly surmount oneself. Through the research and analysis of the factors influencing the generation of high-level talents, the generation mechanism of high-level talents and the growth law of high-level talents, it provides the basis for the construction of the growth mechanism of high-level talents.

Hu, Bei and Moli (2007, p.121) adopted the methods of questionnaire survey and in-depth interview to construct the talent growth incentive model of the industrial clusters in Beijing, Wuhan, Shanghai and Shunde, which mainly includes the core incentive, important incentive, secondary incentive and auxiliary incentive to promote the talent growth of the industrial clusters.

Wang Tongxun (2006, p.217) summarizes and generalizes various essential connections in the process of talent growth, which is the real plus probability of facts and has a fairly universal consensus. The law of talent growth includes the law of teacher effect, the law of advantages and disadvantages, the law of optimal age, the

law of Matthew effect, the law of expectation effect, the law of symbiosis effect and the law of comprehensive effect.

Sun tran (2011, p.263), the so-called law of talent growth generally refers to the repeatable one-to-one correspondence or multiple correspondence transformation relationship or probabilistic repeated transformation relationship in the process of talent growth under certain conditions. The growth of talents has the law of comprehensive effect, the law of metabolism, the law of tortuous acceleration of development, the law of success along the trend, the law of growth, the law of competition, the law of factor growth, and the law of successful natural development. "Some scholars believe that the growth of talents is affected by various internal and external factors, and there is a leap-forward phenomenon in the growth of talents.

Branka Golub (1998, p.213) explored the growth path of scientific elites in Croatia, and believed that doctoral degree and teaching background in terms of educational factors, employment institutions in terms of social factors, academic positions, social part-time positions, research teams and major research projects are the necessary conditions to become high-level talents.

M.J. Wheatley (2012, p.156) proposed that the formation of talents is not only related to congenital heredity, but more importantly related to later development, that is, family factors, educational factors and social factors.

Chris Argyris (1957, p.98) put forward the "maturity-Immaturity theory" in "Individuals and Organizations: Some Problems of Mutual Coordination" : Human personality development is a growth process, from immaturity to maturity, and finally forming a healthy personality, and the factors of growth are continuous and variable. Changes in variables lead to changes in the overall trend of human development.

Levy (1961 , p.96) proposed on the basis of reviewing previous studies that the potential creativity of each individual is different, and creativity is affected by physiological conditions, social economy, physiological and psychological factors. Creative people can use their talents and special perception in different ways to find

new rules. Creative potential is directly related to a person's degree of mental freedom.

Gruber and Wallace (1989, p.56) suggest that factors such as job networks, personal characteristics, diversity of abilities, insight and belief systems operate at different stages of talent development.

Hu and Zhong Yanqiang (2013, p.89) proposed that human capital and social capital are two important factors that play a decisive role in talent development.

Luo Qinglan, Sun Naiji and Yu Guilan (2012, p.39) analyzed the factors that affect the growth of high-level talents from the macro institutional level, the middle organizational level and the micro individual level respectively, and proposed that the growth and career success of high-level talents are affected by the matching degree of personal and organizational values, personal ability and social network and other factors. Employees with strong interpersonal skills are more likely to grow into high-level talents if their values are matched with the organization, their personal competence is matched with the job and their interpersonal skills are matched.

Song Xiaoxin, Ma Luting and Zhao Shiqi (2018, p.29) propose that it is easier to make breakthroughs by linking individual research topics to major national education issues; Attending a famous university and receiving guidance from a famous teacher at the graduate level are essential for talent development; An interdisciplinary background is conducive to the cultivation of scientific talents with a wide range of knowledge; And the combination of theoretical study and work practice is more conducive to the growth of educational talents

Wang Rui (2019, p.156) proposed that the cultivation of elite talents should follow the growth law of elite talents, and the growth law of elite talents is of great significance for the study of the cultivation mode of elite talents. The main laws of the growth of elite talents are the law of accumulation effect of advantages, the law of non-homogeneity and the law of optimal age, which are objective and universal to a certain extent.

Zhao Jisong (2017, p.125) analyzed the necessity and connotation of leading talents in science and technology. This paper discusses the characteristics and laws

of the growth of leading talents in science and technology from three aspects: internal factors, external factors and creative practice, summarizes the internal factors such as confidence and perseverance that are usually required by the growth of leaders in science and technology, analyzes the characteristics of education, professional environment and innovation practice of leaders closely related to the growth of leaders in science and technology, and puts forward the measures for the development of leaders in science and technology.

Wang Haifeng, Luo Changfu and Li Sijing (2014, p.108) analyzed and summarized the growth process and environment of young scientific and technological innovation talents, and theoretically analyzed that the growth of young scientific and technological innovation talents is mainly affected by personal factors (such as intelligence, motivation, will, etc.), family factors, and social factors (such as education, career, etc.). In addition, the results of practical investigation and analysis show that, Financial support, recognition of scientific research work, and the results of practice-related investigation and analysis show that financial support, recognition of scientific research work, salary level, promotion space, academic culture and the current evaluation mechanism will affect the growth of talents. Finally, the paper puts forward some countermeasures on how to promote the cultivation of young scientific and creative talents.

Menrimou (1989, p.113) et al. believe that the growth of high-level scientific and technological talents is the organic combination of internal factors, natural factors and external factors, and the interaction of the three factors promotes the growth of talents.

Cao Cong and Bai Chunli (1997, p.112) et al. studied the growth law of academicians and specially invited experts of the Chinese Academy of Sciences respectively, and put forward countermeasures and suggestions to promote the growth of scientific and technological innovative talents with the help of sociological research methods.

Liu Shaoxue (2009, p.201) divided the growth of leading scientific and technological talents at home and abroad into three stages: the formation of quality,

the formation of professional ability, and the stimulation of innovation ability, and conducted quantitative research at each stage to explore the growth law of leading scientific and technological talents in China, so as to provide some methods and paths for the cultivation of leading scientific and technological talents in China.

Li Futang (1996, p.103) studied the geographical distribution of modern scientists in China, explored the reasons for the unbalanced geographical distribution of modern scientists in China, and believed that the regional imbalance was mainly influenced by regional economy, Western missionaries, foreign affairs movements and modern university education.

Guo Meirong, Peng Jie, Zhao Wei, Qu Baoqiang (2011, p.108) analyzed the basic information (such as gender, age, work unit, etc.) and the growth process (such as education level, growth cycle, institution change frequency, postdoctoral and overseas visits) of the laureates, and concluded the general characteristics of the growth of young scientific and technological talents.

Li Sumin and Yao Yupeng (2009, p.1-86) took the winners of the National Outstanding Youth Fund in the field of Earth Sciences as examples to discuss the growth process and characteristics of top talents in geology, and put forward some countermeasures and suggestions for training top talents in geology.

Wu and Bu (2003, p.96) investigated the environmental factors affecting the growth of high-level talents, and concluded that there were significant correlations between the growth environments of talents, but there were also some differences. On this basis, they proposed the path selection for the growth of high-level talents. Zong Nong found that good undergraduate education, high-level graduate education, study abroad, and diversified and complex educational factors are the key factors affecting the growth of top innovative talents by observing the educational experiences of academicians in China's "two academies".

Zheng Yanling (2018, p.103), aiming at the gap between the quantity and quality of high-end talents in western China and the actual needs of economic and social development in ethnic minority areas in western China, proposed the teaching concept of "promoting employment through innovation" in order to improve the

efficiency of entrepreneurship and employment and promote the economic development of western China. The teaching concept of "seeking employment through innovation" is put forward at different levels to improve the efficiency of entrepreneurship and employment, so as to promote the economic development of the western region.

Zeng Jinyi and Yan Zexian (1983, p.109) used the scientific knowledge of talents to study and discuss the growth law of individual and group of scientific and technological talents from macro and micro perspectives.

Zhong Zurong (1988, p.128) put forward the main basis for dividing the growth stages of high-level scientific and technological talents: one is the leading activities of high-level scientific and technological talents, the other is the development level of their quality.

Ye Zhonghai (1990, p.124) believed that the growth phenomenon of high-level scientific and technological talents mainly includes two types, namely the individual growth phenomenon of high-level scientific and technological talents and the overall growth phenomenon of high-level social scientific and technological talents, which complement each other.

Luo Hongti (1994, p.115) studied the law of talent growth based on the growth and development process of high-level scientific and technological talents, regarded the inner quality as the basic role of the growth of high-level scientific and technological talents, and divided the process into the stage of talent formation and the stage of talent dissemination.

Li Tieying (198, p.112) disagreed with the talent division method proposed by Lei Jixiao et al. He divided the growth stage of talents into five stages: infancy, seeking, creation, maturity and old age.

In view of the "30,000-day learning theory" proposed by Japanese scholars, Wang (1985, p.113) believed that, from the perspective of talent science, the growth process of human resources can be roughly divided into four stages: fetal period, inheritance period, creation period and development period.

Chapter 3

Research Methods

This research focuses on high-level talents of universities in Guangxi. To study the current situation of high-level talents, develop and evaluate the adaptability and feasibility of the guideline for development of high-level talents of universities in Guangxi. The researcher conducted the research as the following procedures:

1. Population/Sample group
2. Research Instruments
3. Data collection
4. Data analysis

Population and the Sample Group

Population

400 high-level talents from 20 public universities in Guangxi, including university leaders, professors, associate professors, doctorate teacher.

The Sample Group

The Sample Group was 200 high-level talents from top 20 public universities in Guangxi, determined by Sample size selected according to Morgan's law table. High-level talents included university leaders, professor, associate professor, and doctorate teacher.

The interviewee was 10 high-level talents who competent at the level of BCDE as recognized by the Guangxi Zhuang Autonomous Region government. Through systematic random sampling, the sampling table of universities was formed as follows:

Table 3.1 Sample size from top 20 public universities in Guangxi

Ranking	Name of school	Population	sample size
1	Guangxi University	70	35
2	Guangxi Medical University	54	27
3	Guangxi Normal University	24	12
4	Guilin University of Electronic Science and Technology	28	14
5	Guilin University of Technology	24	12
6	Nanning Normal University	24	12
7	Guangxi University for Nationalities	24	12
8	Guangxi University of Traditional Chinese Medicine	16	8
9	Guilin Medical College	12	6
10	Yulin Normal University	12	6
11	Guangxi University of Science and Technology	12	6
12	Beibu Gulf University	12	6
13	Hezhou College	8	4
14	Guilin Institute of Aerospace Industry	12	6
15	Wuzhou College	12	6
16	Youjiang Medical College for Nationalities	12	6
17	Baise Academy	12	6
18	Guangxi Normal University of Science and Technology	8	4
19	Guangxi University of Finance and Economics	12	6

Table 3.1 Sample size from top 20 public universities in Guangxi (Continue)

Ranking	Name of school	Population	sample size
20	HeChi College	12	6
	Total	400	200

Research Instruments

The instruments to collect the data in this research were questionnaire, interview form and evaluation form.

Questionnaire

Questionnaire about high-level talents of universities in Guangxi, which was designed based on four following aspects: 1) family factors, 2) Educational factors, 3) Social factors, and 4) personal factors. The questionnaire was divided into two parts :

Part 1: A survey of the basic information of the respondents which classified by gender, educational background, professional title, degree granting unit, discipline category, industry.

Part 2: A survey of high-level talents of universities in Guangxi. There are 16 questions for family factors, 22 questions for educational factors, 31 questions for social factors, and 27 questions for personal factors, total of 96 questions. The questionnaire used by five-point Likert's scale, as follow:

5	Reference	Very good
4	Reference	Good
3	Reference	Normal
2	Reference	Not good
1	Reference	Very bad

Creating the questionnaire processes

The questionnaire creates processes were as follows:

Step 1: Search relevant literature and implement the four variables: Through the collection of preliminary literature and relevant theoretical research, combined with the interview of relevant experts and sample objects, the four variables affecting

high-level talents in universities and colleges in Guangxi are formed preliminarily in this study.

Step 2: The questionnaire was designed according to the four variables, the outline of the questionnaire was submitted to the supervisor for examination, and the questionnaire was modified according to the supervisor's suggestions.

Step 3: Three experts in the field of education are invited to evaluate the questionnaire. The index of objective congruence (IOC) was 1.00.

Step 4: A five-level scale questionnaire was created through the questionnaire Star software and distributed to 20 public universities via the Internet to ensure that each questionnaire was distributed to the sample subjects and that the return rate was 100%.

Interview form

The interview about high-level talents of universities in Guangxi, which was designed based on four following aspects: 1) family factors, 2) Educational factors, 3) Social factors, and 4) personal factors. The interviewee was 10 high-level talents identified by the Guangxi Zhuang Autonomous Region government as BCDE who are currently working in universities.

Evaluation form

The researcher invites 10 experts to evaluate the adaptability and feasibility of guideline for development of high-level talents of universities in Guangxi. The invited experts have certain experience and rich theories in the field of colleges and universities and human resources.

Data collection

The data collections in this research were as following procedures:

Questionnaire

1. The researcher firstly formed a preliminary questionnaire framework through the collection and sorting of previous literature materials and the study of relevant theories, combined with the interview of relevant experts and sample objects.

2. The Delphi method was applied to the questionnaire index, and several rounds of expert consultation were carried out, including membership analysis,

discrimination analysis, correlation analysis and expert revision, etc., to revise the questionnaire. Three experts were selected to verify the consistency of content by measuring the target project objective consistency (IOC). According to the reliability of the above sample test research tool, Cronbach coefficient is 0.981, greater than 0.9, indicating that the questionnaire has high reliability and good reliability, which can be used for the following analysis. Validity tests were carried out through Bartlett's spherical test and KMO test. Bartlett's spherical test was significant with a significance less than 0.5 and KMO value greater than 0.8, indicating that the collected data were well suited for factor analysis..

3. The research tools have been adjusted and perfected so that they can be widely used (mainly in relevant universities in Guangxi Zhuang Autonomous Region). The questionnaire was put on the star of the questionnaire and sent to the top 20 universities in Guangxi for high-level talents.

Interview

1. Analyze the factors affecting the high-level talents in universities and colleges in Guangxi

2. Set the qualifications for high-level talents in universities to participate in the interview (the standard is ABCDE high-level talents recognized by the Guangxi Zhuang Autonomous Region government).

3. Select interviewees who meet the conditions as the standard is ABCDE high-level talents recognized by the Guangxi Zhuang Autonomous Region government.

Evaluation

1. According to the setting conditions: that is, experts and scholars who have certain research in the direction of university management, education, sociology, family studies and human resources will form an expert group

2. In accordance with the guidelines for the preparation of experts to assess the share of the card, held an expert seminar, sent to experts on site for discussion, and scored item by item.

3. Collect expert evaluation forms and analyze the data

Data analysis

Questionnaire

Before analyzing the data, the researcher first checks the correctness and completeness of the questionnaire. If the data is found to be conflicting or incomplete, the researcher will directly ask the respondents for more information. Next, the researcher creates a data file to store the variables used in the study. When the data is prepared, the researcher will analyze the data in two steps, namely the preliminary analysis of the data and the in-depth analysis. as follows:

1. Preliminary analysis of data, analysis of the characteristics of each research variable data, including preliminary data analysis and basic statistical analysis of variables using package software data inspection tools. Preliminary data analysis is to analyze the background of the sample, including the gender, age, work experience (year of study) and professional background of the sample, and calculate the percentage and frequency; basic statistical analysis of variables is the basic statistical analysis of dependent variables, calculation mean and standard deviation.

2. In-depth analysis, the survey (evaluation) questionnaire on the factors influencing the growth of high-level talents in Guangxi is used to observe the current situation of the growth of high-level talents in Guangxi and to analyze and determine the main factors influencing the growth of high-level talents in Guangxi. According to the relevant theoretical methods of talent growth, we study the development guide of high-level talents in Guangxi and further understand their mean and standard deviation.

Interview

Interview 10 ABCDE high-level talents identified by the Guangxi Zhuang Autonomous Region government to understand the growth experience and current situation of high-level talents in Guangxi colleges and universities, to provide strong support for the formulation of guidelines for the development of high-level talents in Guangxi colleges and universities.

Evaluation

Based on the basic statistical analysis of the dependent variables, the mean value and standard deviation are calculated. According to the data analysis of factors

affecting the growth of high-level talents in universities and colleges in Guangxi and the interview results of high-level talents in universities and colleges in Guangxi, the development guide for high-level talents in universities and colleges in Guangxi is formed and evaluated by experts.

Statistic

Statistical and descriptive statistics were used for data analysis.

1. The percentage method is adopted to analyze the basic information of the survey objects of high-level talents in universities and colleges in Guangxi.

2. The mean value and standard deviation are used to verify the data analysis results of the questionnaire on influencing factors of high-level talents in universities and colleges in Guangxi.

3. Use the content analysis method to evaluate the feasibility of the guidelines for high-level talents development in universities and colleges in Guangxi

Data interpretation

The questionnaire survey mainly consists of two parts. The first part is to understand the basic situation of high-level talents in universities and colleges in Guangxi, such as political status, the highest degree unit, professional discipline category, gender, industry, academic honor, relevant talent support, etc. The second part mainly adopts the five-level measurement method from the four dimensions of education, family, society and individual, researchers defined criteria for data interpretation based on the MLQ five-level standard jointly developed by Bass & Avolio (1990)

As follows:

4.51 - 5.00	Reference	highest level
3.51 - 4.50	Reference	High level
2.51 - 3.50	Reference	Medium level
1.51 - 2.50	Reference	Low level
1.00 - 1.50	Reference	Lowest level

In assessing the feasibility of the Guangxi High-Level Talent Development Guide, the researchers continued to use Bath's MLQ5 level criteria. The details are as follows:

4.51 - 5.00	Reference	Adaptability/Feasibility at the highest level
3.51 - 4.50	Reference	Adaptability/Feasibility at the high level
2.51 - 3.50	Reference	Adaptability/Feasibility at the medium
1.51 - 2.50	Reference	Adaptability/Feasibility at the low level
1.00 - 1.50	Reference	Adaptability/Feasibility at the lowest level

Chapter 4

Data Analysis

This research focuses on high-level talents of universities in Guangxi. The objectives of this research were: 1) to study the current situation of high-level talents of university in Guangxi, 2) to develop the guidelines for development of high-level talents of universities in Guangxi, and 3) to evaluate the adaptability and feasibility of the guidelines for development of high-level talents of university in Guangxi. The data analysis of the research results proposed by the researcher, as follows:

Part 1: The analysis result about personal information of the respondents, classified by gender, educational background, professional title, degree granting unit, discipline category, industry. Presented in the form of number and percentage.

Part 2: The analysis result about the current situation of high-level talents of university in Guangxi. Presented in the form of average value and standard deviation.

Part 3: The analysis result of the interview data about the guidelines for development of high-level talents of universities in Guangxi.

Part 4: The analysis result about the evaluation of adaptability and feasibility of the guidelines for development of high-level talents of universities in Guangxi.

Data analysis results

Researcher analyzed the data in four parts as follows:

Part 1: The results of the analysis of the respondents' personal information are presented in numbers and percentages by gender, age, marital status, educational background, university level, Presented in the form of number and percentage.

Table 4.1 Number and percentage of respondents

(n = 200)

Personal information		Number	Percentage
Gender	Male	123	61.50
	female	77	38.50
	Total	200	100
AGE	18-35	6	3.00
	35-50	68	34.00
	Over 50	126	63.00
	Total	200	100
Education background	Bachelor's degree	56	28.00
	Master's degree	52	26.00
	Doctor's degree	92	46.00
	Total	200	100
Marital Status	Unmarried	15	7.50
	Married	156	78.00
	Widowed	13	6.50
	Divorced	16	8.00
	Total	200	100
	"Double world-class project" and "985" universities	63	31.50
	"211" University	58	29.00

Table 4.1 Number and percentage of respondents(Continue)

	Personal information	Number	Percentage
University level	Other colleges and universities in China	59	29.50
	Domestic research institutes	3	1.50
	Foreign university or research institution	17	8.50
	Total	200	100

According to Table 4.1, the majority of respondents were male 123, accounting for 61.50%, and female 77, accounting for 38.50%. Most of the interviewees are over 50 years old, 126 of them account for 63.00%, and most of them have doctor's degree, 92 of them account for 46.00%. The marital status of 156 respondents was married, accounting for 78.00%. The surveyed universities were mainly "double first-class" and "985" universities, with 63 students, accounting for 31.50%. The level of graduating university from "Double first-class" and "985" universities, with 63 accounting for 31.50%.

Part 2: The analysis result about the current situation of high-level talents of university in Guangxi. Presented in the form of average value and standard deviation.

Table 4.2 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in 4 aspects

(n = 200)

the current situation of high-level talents of university in Guangxi	\bar{x}	S.D..	level	Order
Family factors	4.20	0.731	high	4
Educational factors	4.38	0.782	high	1
Social factors	4.34	0.783	high	2
Personal factors	4.33	0.743	high	3
Total	4.31	0.760	high	

According to table 4.2, found that the current situation of high-level talents of university in Guangxi in four aspects was at high level ($\bar{x} = 4.31$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was educational factors ($\bar{x} = 4.38$), followed by social factors ($\bar{x} = 4.34$), and family factors was the lowest level ($\bar{x} = 4.20$).

Table 4.3 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in family factors

(n = 200)

	Family factors	\bar{x}	S.D.	Level	Order
1	The influence of parents' personality on talent formation	4.17	0.763	high	9
2	The influence of the growing family atmosphere on the formation of talents	4.23	0.765	high	6
3	The influence of family structure status on talent formation	4.21	0.763	high	7
4	The influence of parental education on talent formation	4.44	0.714	high	1
5	The influence of marriage and family atmosphere on talent formation	4.31	0.734	high	5
6	The influence of parents' occupational status on talent formation	4.32	0.717	high	4
7	The influence of family social (network) relationships on talent formation	4.42	0.714	high	2
8	The influence of family pressure on talent formation after marriage	4.41	0.706	high	3
9	The influence of family economic conditions on talent formation after marriage	4.07	0.734	high	15
10	The influence of parental education on talent formation	4.01	0.734	high	16
11	The effect of spouse's education on talent formation	4.09	0.712	high	13
12	The impact of sibling education on talent formation	4.08	0.761	high	14
13	The impact of family relocation on talent formation	4.17	0.703	high	10

Table 4.3 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in family factors (Continue)

(n = 200)

	Family factors	\bar{x}	S.D.	Level	Order
14	The influence of changes in family members on talent formation during growth	4.19	0.721	high	8
15	The influence of changing family economic status on talent formation during growth	4.13	0.722	high	12
16	The impact of parent job changes on talent formation	4.14	0.732	high	11
Total		4.21	0.731	high	

According to table 4.3, found that the current situation of high-level talents of university in Guangxi in family factors was at high level ($\bar{x} = 4.21$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was the influence of parental education on talent formation ($\bar{x} = 4.44$), followed by the influence of family social (network) relationships on talent formation ($\bar{x} = 4.42$), and the influence of family pressure on talent formation after marriage was the lowest level ($\bar{x} = 4.01$).

Table 4.4 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in educational factors

(n = 200)

	Educational factors	\bar{x}	S.D.	Level	Order
1	The influence of school choice in 12 years compulsory education on talent formation	4.37	0.786	high	10
2	The influence of educational resources provided during 12 years of compulsory education on talent formation	4.38	0.774	high	9
3	The influence of 12-year compulsory education learning atmosphere on talent formation	4.33	0.784	high	15
4	Influence of 12-year compulsory education teachers' education status on the formation of human resources	4.35	0.782	high	13
5	12 years of compulsory education teachers pay attention to the impact of personal development on talent formation	4.31	0.771	high	16
6	The influence of undergraduate educational institution selection on talent formation	4.61	0.781	highest	2
7	The impact of educational resources provided at undergraduate level on the formation of human resources	4.62	0.793	highest	1
8	The influence of undergraduate learning atmosphere on the formation of human resources	4.59	0.784	highest	4

Table 4.4 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in educational factors (Continue)

(n = 200)

	Educational factors	\bar{x}	S.D.	Level	Order
9	The influence of teacher education status on the formation of human resources in undergraduate education	4.52	0.774	Highest	5
10	Teachers value the impact of individual development on the formation of talent at the undergraduate level of education	4.61	0.772	highest	3
11	The influence of the choice of research unit on the formation of talents at the postgraduate level	4.37	0.783	high	12
12	Study the impact of educational resources provided by the unit on talent formation at the postgraduate level	4.41	0.784	high	6
13	The impact of the research climate at the master's degree level on talent formation	4.38	0.782	high	8
14	The influence of tutor teaching on the formation of talents in master education stage	4.39	0.783	high	7
15	The influence of the supervisor's focus on individual academic development on talent formation at the master's level of education	4.37	0.784	high	11
16	The influence of overseas educational institution selection on talent formation	4.31	0.794	high	17
17	The impact of educational resources provided by overseas education on talent formation	4.34	0.797	high	14

Table 4.4 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in educational factors (Continue)

(n = 200)

	Educational factors	\bar{x}	S.D.	Level	Order
18	The influence of study abroad atmosphere on talent formation	4.27	0.787	high	20
19	The influence of the education status of overseas teachers on the formation of human resources	4.29	0.774	high	19
20	Teachers value the impact of personal development on the formation of talent in offshore education	4.31	0.772	high	18
21	The impact of interdisciplinary educational resources on talent formation	4.21	0.781	high	23
22	Local governments attach importance to the influence of educational resources on talent formation	4.23	0.783	high	22
23	Local governments value the impact of continuing education on talent formation	4.25	0.784	high	21
	Total	4.38	0.782	high	

According to table 4.4, found that the current situation of high-level talents of university in Guangxi in educational factors was at high level ($\bar{x} = 4.38$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was the impact of educational resources provided at undergraduate level on the formation of human resources ($\bar{x} = 4.62$), followed by the influence of undergraduate educational institution selection on talent formation ($\bar{x} = 4.61$), and the impact of interdisciplinary educational resources on talent formation was the lowest level ($\bar{x} = 4.21$).

Table 4.5 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in social factors

(n = 200)

	Social factors	\bar{x}	S.D.	Level	Order
1	The influence of talent policy tilt on talent formation in minority areas	4.51	0.846	Highest	3
2	The effectiveness of talent policy on talent formation in ethnic minority areas	4.49	0.704	high	5
3	The influence of talent policy in minority areas on inspiring talent innovation and talent forming vitality	4.53	0.696	highest	2
4	The influence of the situation of talent incentive plan in minority areas on talent formation	4.55	0.758	highest	1
5	The influence of overall resource rationing on talent formation in minority areas	4.24	0.832	high	22
6	The influence of social resource rationing on the formation of growing talents	4.19	0.704	high	30
7	The influence of resource allocation of scientific research institutions on the formation of talents in scientific research stage	4.21	0.758	high	27
8	The impact of resource rationing received at higher education levels on talent formation	4.22	0.885	high	26
9	The influence of the overall level of regional economic development on talent formation	4.28	0.704	high	14

Table 4.5 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in social factors (Continue)

(n = 200)

	Social factors	\bar{x}	S.D.	Level	Order
10	The influence of regional education quality on talent formation under the background of regional economic development	4.27	0.684	high	15
11	The impact of regional economic development on local student career planning	4.31	0.885	high	11
12	The impact of the current situation of regional economic development on research funds, equipment and other conditions	4.32	0.736	high	9
13	The influence of social importance of scientific research institutions on talent formation	4.31	0.758	high	10
14	The importance of team support for a talent's career development	4.41	0.885	high	8
15	The importance of teamwork to improve one's overall ability	4.51	0.885	highest	4
16	The importance of teamwork in bringing out individual potential	4.46	0.736	high	6
17	The impact of team quality on individual development	4.44	0.738	high	7
18	The impact of early and late First academic output on success	4.21	0.846	high	29
19	The effect of a good research environment on length of academic life	4.29	0.885	high	13
20	The effect of a good social climate on academic longevity	4.23	0.885	high	23

Table 4.5 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in social factors (Continue)

(n = 200)

	Social factors	\bar{x}	S.D.	Level	Order
21	The influence of perfect competition system on academic life span	4.24	0.704	high	21
22	Study the impact of the environment on talent formation in the academic life cycle	4.27	0.6729	high	16
23	The influence of good social climate on talent formation in the academic life cycle	4.26	0.684	high	18
24	The impact of a well-developed competitive system on talent formation in the academic life cycle	4.23	0.885	high	24
25	The influence of citation times of published papers on talent formation in academic life cycle	4.19	0.736	high	30
26	The impact of academic honors on talent formation	4.25	0.744	high	20
27	The influence of research field direction on talent formation	4.31	0.885	high	12
28	The influence of subject preference and institutional preference in the selection of research fields on talent formation	4.26	0.736	high	19
29	The Influence of international academic Exchange on talent formation	4.27	0.744	high	17
30	The impact of the importance of academia, etc., to the field of study on talent formation	4.23	0.885	high	25

Table 4.5 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in social factors (Continue)

(n = 200)

	Social factors	\bar{x}	S.D.	Level	Order
31	Study the influence of the degree of cutting edge on talent formation	4.21	0.782	high	28
	Total	4.31	0.783	high	

According to table 4.4, found that the current situation of high-level talents of university in Guangxi in social factors was at high level ($\bar{x} = 4.31$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was the influence of the situation of talent incentive plan in minority areas on talent formation ($\bar{x} = 4.55$), followed by the influence of talent policy in minority areas on inspiring talent innovation and talent forming vitality ($\bar{x} = 4.53$), and the influence of social resource rationing on the formation of growing talents and the influence of citation times of published papers on talent formation in academic life cycle was the lowest level ($\bar{x} = 4.19$).

Table 4.6 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in personal factors

(n = 200)

	Personal factors	\bar{x}	S.D.	Level	Order
1	The influence of risk-taking quality on talent formation	4.26	0.862	high	17
2	The influence of self-confidence quality on talent formation	4.23	0.717	high	21
3	The influence of cooperative spirit on talent formation	4.24	0.730	high	19
4	The influence of innovative spirit on talent formation	4.16	0.730	high	25
5	The impact of willingness to accept new things on talent formation	4.32	0.716	high	15
6	The influence of positivity and enthusiasm on talent formation	4.31	0.718	high	16
7	The impact of perseverance and grasp the nettle on talent formation	4.18	0.716	high	23
8	The impact of clarity of purpose on talent formation	4.11	0.724	high	27
9	The influence of good study habits on talent formation	4.51	0.716	highest	3
10	The influence of good scientific research habits on talent formation	4.53	0.724	highest	2
11	The impact of unique learning methods on talent formation	4.42	0.716	high	8
12	The influence of unique research ideas on talent formation	4.43	0.724	high	7
13	The impact of academic achievement on talent formation	4.41	0.862	high	9

Table 4.6 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in personal factors (Continue)

(n = 200)

	Personal factors	\bar{x}	S.D.	Level	Order
14	The influence of talent in the field of study on talent formation	4.36	0.717	high	11
15	The influence of talents in basic disciplines on talent formation	4.34	0.7187	high	13
16	The influence of learning ability on talent formation	4.35	0.692	High	12
17	The influence of work ability on talent formation	4.42	0.716	high	10
18	The impact of interpersonal and other skills on talent formation	4.33	0.718	high	14
19	The impact of health on talent formation	4.51	0.824	highest	4
20	The impact of regular schedules on talent formation	4.49	0.862	high	5
21	The impact of positive mental states on talent formation	4.48	0.655	high	6
22	The impact of a strong position on talent formation	4.54	0.668	highest	1
23	The impact of academic awards won at the higher education level on talent formation	4.24	0.862	high	18
24	The impact of other types of awards won at the higher education level on talent formation	4.21	0.716	high	22
25	The impact of academic honors earned during the research phase on talent formation	4.22	0.666	high	20

Table 4.6 The average value and standard deviation of the current situation of high-level talents of university in Guangxi in personal factors (Continue)

(n = 200)

	Personal factors	\bar{x}	S.D.	Level	Order
26	The influence of other honors won at the scientific research stage on talent formation	4.19	0.862	high	24
27	The influence of academic honors earned during the work phase on talent formation	4.15	0.716	high	26
Total		4.33	0.743	high	

According to table 4.6, found that the current situation of high-level talents of university in Guangxi in personal factors was at high level ($\bar{x} = 4.39$). Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was The impact of a strong position on talent formation ($\bar{x} = 4.54$), followed by The influence of good scientific research habits on talent formation ($\bar{x} = 4.53$), and the impact of clarity of purpose on talent formation and the influence of academic honors earned during the work phase on talent formation was the lowest level ($\bar{x} = 4.27$).

Part 3: The analysis result of the interview data about the guidelines for development of high-level talents of universities in Guangxi.

To understand the factors affecting to high-level talents of universities in Guangxi, the researcher interviewed 10 BCDE high-level talents identified by the Guangxi Zhuang Autonomous Region government. The specific interview records are as follows:

Interviewee 1

1. Could you tell me something about your achievements so far?

I have presided over the national "973" program, the "863" major program, and the National Natural Science Foundation of China research projects. I have won the second prize of the National Science and Technology Progress Award, the second prize of the National Technology Invention Award, the first prize of the Science and Technology Progress Award of the Ministry of Education, and the Guangxi Science and Technology Special Contribution Award. In particular, the chlorine dioxide bleaching and preparation technology won the second prize of national technological invention. The achievements have a very good influence at home and abroad, and are in the international leading level. The original technology has been "stuck" abroad for a long time, affecting the development of domestic paper industry, now we have broken the monopoly, is conducive to the sustainable development of this industry.

2. You have made such great achievements. Has the education you received helped you a lot?

Of course, the scientific research work I am engaged in is inseparable from my education. My undergraduate, master's and doctor's majors are all related to pulp and paper engineering. It is because of the systematic education that I can make some achievements in this field.

3. Which stage of education experience do you think has helped you the most?

The master's and doctoral education has helped me the most, allowing me to master the method of scientific research.

4. Do you have a supportive family? What do you think is the most critical support?

A lot of support. My family is a lot of support for me. It takes a lot of time to do scientific research.

5. In addition to family, what kind of support do you think has a great impact on you from the state or the organization?

Thanks to the training of leaders at all levels in Guangxi and Guangxi University, I have grown from a doctor to an academician. Academician is a lofty academic honor. Although the title of academician is granted to me personally, I think it is an affirmation of the light industry discipline and papermaking major of Guangxi University, as well as the contribution made by our major in the same industry. Guangxi has an important papermaking industry, which has unique conditions for me to carry out scientific research and cultivate talents. I think Guangxi provides a good environment for talents to give play to their wisdom, and the conditions for experiments and scientific research are getting better and better.

6. In your academic research, what do you pay attention to and pursue?

I will integrate the resources of Guangxi University, Guangxi, and other regions and foreign countries to solve some core technical problems in China's paper industry and environmental protection industry, especially in the paper industry. China is not a strong country in paper making. I want to lead the team to solve a technical problem one year or two years, and lead the national technical team to solve the key problem. My wish is that within 10 years, most of the core equipment of China's paper industry can be localized and the monopoly can be broken; After 20 years, China's papermaking equipment and technology can basically break the monopoly and basically realize the localization; 30 years later, China's papermaking equipment and technology can go to the world and lead the papermaking industry. The other is the discipline goal, because I am a professor of Guangxi University, my main task is to focus on discipline construction, after there is an academic platform, we can introduce more high-end talents, young scholars and top scholars, expand the platform, strive for some national scientific research platforms, and then introduce and cultivate some high-end national talents, hoping that in the next discipline evaluation, In the next discipline evaluation, our light industry discipline can enter the top 4 universities in China, and papermaking major can enter the top 3;

In another five years, the light industry discipline will be among the top three, and the papermaking major will be among the top two

7. In your academic research, how do you grasp the relationship between academic and domain?

I do not pay too much attention to the domain of authority, and I want to put more energy into my academic research. Of course, some positions given to me by the state and the government can also enable me to better integrate resources and better serve my academic research.

8. In your opinion, what aspects of education support in ethnic minority areas have a great impact on the formation of talents?

Every year, our country has some key talent training programs in minority areas, including bachelor's degree, master's degree and doctoral degree. I think this is a good factor for our minority areas, which can cultivate more and better high-level talents we need.

9. What personal qualities do you think are the key to your success?

In my opinion, to do academic work, we should be able to keep calm and have the courage and perseverance to persist. If we can take root in an industry for decades or more years, we cannot do it without certain determination.

10. In addition, what other factors do you think have helped you to achieve today's achievements?

I think in addition to the above efforts of family, education, the government and myself, the rationing of government resources and the support of the talent team have all helped me a lot. The research and development of any core and key technology must be a collaborative effort between different disciplines, departments and even different schools. On many occasions, I have put forward the need for collaborative innovation. It is very important to grasp a problem and unite different industries and departments to tackle it. However, under the current system, to coordinate with different departments, units and regions, we still need to continue to innovate in the system. Second, we need leaders, who are difficult to select. At present, strategic scientists are advocated, and they have higher requirements for structure, vision and organizational ability. The most important thing is that there are many technical problems encountered in the R&D process, which cannot be solved

by one or two generations, but may require the continuous efforts of three or four generations.

Interviewee 2

1. Could you tell me something about your achievements so far?

I have been engaged in agricultural scientific research and science and technology management, mainly studying rice. I have led the cultivation of the first and second super rice varieties in Guangxi, "Guiliangyou No.2" and "Special You 582", which has achieved a breakthrough in super rice breeding in our region. I have presided over and mainly participated in the breeding of 34 rice varieties and sterile lines that have passed the national and Guangxi variety examination. A total of 24 scientific and technological achievements were obtained, including 1 special prize of National Science and Technology Progress, 1 second prize of National Science and Technology Progress, 3 Special Contribution award of Guangxi Science and Technology, 2 first prize, 3 second prize, 5 third prize of Guangxi Science and Technology Progress, and 9 other department and bureau level awards. In charge of obtaining 6 new plant variety rights, 8 authorized national invention patents, and 2 issued Guangxi local standards; He has published 106 papers in the professional journals of "Chinese Rice Science". He was the chief editor of the series of Guangxi Crop Germplasm Resources and the Annals of Chinese Rice Varieties-Guangxi Volume. Deputy editor of 3 monographs of Survey of Crop Resources in Coastal Areas of Guangxi. And won a series of honors.

2. Did the education you received help you a lot when you achieved so much?

Of course, I have achieved these achievements, are not from the systematic study, from undergraduate to doctoral education is related to my current work, to be precise, it is because of this undergraduate, master, doctoral series of education, I have now achievements.

3. Which stage of education experience do you think has helped you the most?

I think my education at the undergraduate, master and doctoral levels has helped me the most.

4. Does your family support you a lot? What do you think is the most critical support?

Of course, support is big. Every successful man doesn't have support from his family. I would like to thank my spouse, parents and children for supporting me in my work over the years.

5. In addition to family, what support from the state or the unit do you think has a great impact on you?

I am a researcher who interacts with farmers every day, and my success cannot be separated from the attention paid by the state and the unit to rice research. In 1986, I entered the Rice Research Institute of Guangxi Academy of Agricultural Sciences, and devoted myself to rice research. It is the state and the institute that have given the team, funds and other support. It was the support from the state and the institute that enabled me and the team to strive for innovation and make new breakthroughs one after another, effectively solving the world problem of hybrid rice with high yield but not high quality and high quality but not high yield, and realizing the goal of "making Guangxi's high-quality hybrid rice fragrantly floating in thousands of countries".

6. What do you personally focus on and pursue in your academic research?

In my academic research, I personally pay attention to innovation, and innovation is the life of scientific research. Our team is good at breaking and brave, aiming at local characteristic resources, and finding a new way to promote the "strong combination" of silk seedling rice and hybrid rice as the main direction. Through the introduction of new high-quality resources, we have taken the lead in implementing a new strategy and technical route of silk seedling type high-quality breeding to cultivate high-quality hybrid rice varieties in China, so that the new varieties can not only have the excellent quality of silk seedling rice but also achieve considerable yield of hybrid rice. Guangxi is a typical double-cropping rice area with superior climatic conditions. Promoting the application of super rice is an important strategy to improve the yield per unit area and total yield of grain production, achieve stability and ensure grain security in Guangxi. My pursuit is that our hybrid water father rice technology can be more promoted in the future, and the yield per mu can be a new level.

7. In your academic research, how do you grasp the relationship between academic and domain?

I do not pay much attention to the issue of authority, and I want to put more energy into my academic research. Of course, some positions given to me by the state and the government can also enable me to better integrate resources and serve my academic research.

8. In your opinion, in terms of education support in ethnic minority areas, what aspects have a great impact on the formation of talents?

Every year, our country has some key talent training programs in minority areas, including undergraduate, master and doctoral programs. I think this is a good factor for our minority areas, which can cultivate more and better high-level talents we need.

9. What personal qualities do you think are the key to your success?

I think academic to be able to calm down, to have the courage and perseverance to adhere to constant, in an industry to be able to take root for decades, more than a decade, there is no certain determination is unable to do.

10. In addition, what other factors do you think have helped you achieve today's achievements?

I think the opportunity and subject or academic direction are also very important. Sometimes a good project or direction can make one's research career more effective.

Interviewee 3

1. Could you tell me about your achievements so far?

In recent years, I have presided over more than 30 projects of the National 863 Program and the National Natural Science Foundation of China. I have published three academic books, including Ordered Binary Decision Graph and Its Application, Formal Methods of Software Development, Formal Analysis and Design of Network Protocols, etc. He has published Formal Methods in Systems Design, Computer Aided Design and Journal of Automated He has published more than 200 academic papers (including more than 100 papers indexed by SCI and EI) in important academic journals at home and abroad, such as Reasoning, Journal of Computer Aided Design, Journal of Software, Journal of Communication, Journal of Electronics and Journal of Automation. Won the first batch of New century national "Millions of Talents Project",

The State Council government special allowance expert, the national model teacher, Chinese Overseas Chinese Innovation Talent Contribution Award, Guangxi Teaching teacher, Guangxi Excellent expert, Guangxi University Outstanding science and technology talents, Guangxi Excellent Returned overseas students, Guangxi Overseas Chinese Youth Outstanding Figure, Guangxi "Ten Hundred Thousand Talents Project" candidate, Cross-century young and middle-aged academic leaders of Guangxi universities, excellent teachers of electronic industry system, Excellent Youth of science and technology of the Ministry of Electronic Industry, etc.

2. Have you made such great achievements? Has the education you received helped you a lot?

I received my bachelor's degree, master's degree and doctor's degree in engineering from Taiyuan University of Technology, Xidian University and Zhejiang University. These schools are relatively good universities in China, so they have helped me a lot.

3. Which stage of educational experience do you think has helped you the most?

My bachelor's, master's and doctor's degrees have helped me the most.

4. Is your family supportive to you? What do you think is the most critical support?

The support is great, especially when I come from Xi 'an to work in Guangxi. My family is very supportive.

5. In addition to family, what kind of support do you think has a great impact on you from the state or the unit?

The government of Guangxi District also attaches great importance to the introduction of talents. Guilin University of Electronic Science and Technology and the government have given me a lot of support in projects, teams and talents in recent years, which has a great influence on me.

6. What do you personally focus on and pursue in your academic research?

I personally pay more attention to academic innovation and the application of technology. What I pursue is to be able to apply my technology to the life of the country and the people, so as to serve the prosperity of the country and the better life of the people.

7. In your academic research, how do you grasp the relationship between academic research and power?

Trusted by the government and organizations, I also served as the president of Guilin University of Electronic Science and Technology. However, I prefer academic research and teaching, so I am not suitable for being a manager, so I resigned from the position of president a few years ago and concentrated on academic work.

8. What aspects do you think have a great impact on the formation of talents in terms of educational support in ethnic minority areas?

In my opinion, ethnic areas should also introduce more experts in education, and issue more policies to enable more talents to receive higher education. At present, Guangxi has a relatively small number of first-class universities and 985 universities. Without good universities, it is impossible to cultivate more talents.

9. What personal qualities do you think are the key to your success?

I think I like academic, like learning, personality is also more outgoing, can persist, these are the key to my success.

10. What other factors do you think have contributed a lot to your achievement?

In addition, I had foreign exchanges and cooperation. From 1998 to 2002, I did postdoctoral research and visiting research in CURTIN University and MURDOCH University in Australia, which also helped me a lot in the future.

Interviewee 4

1. Could you tell me about your achievements so far?

I have been engaged in research and teaching in the fields of biosensors, signal and information processing, nonlinear theory and medical applications, and biomedicine. Since 1991, I have presided over or been a major participant in more than 20 scientific research projects, including 2 National Natural Science Foundation of China (NSF) projects, 3 National 863 projects, 2 provincial science and technology projects, 1 China Postdoctoral Foundation project, and 8 enterprise research projects. He is currently undertaking the National 863 project "Development of nanosensors for Early Diagnosis of Tumor", the National 863 General project "Completion of taste bionic perception technology and information Fusion Technology", and the Hunan Provincial Natural

Science Foundation "Research on key technologies for Early comprehensive imaging computer-aided diagnosis of brain tumor". He has published more than 80 professional academic papers and won 3 national invention awards. In 2008, the second level candidate of Guangxi "New Century Ten Hundred Thousand Talents Project".

2. Has the education you received helped you a lot when you made such great achievements?

Yes, education has helped me a lot, and I think education has helped all scholars a lot.

3. Which stage of your education experience do you think helped you the most?

In my opinion, the educational experience at all stages is of great help to me, especially in the higher education stage, the free academic atmosphere in the university, the academic guidance of the tutors in the master's and doctoral stages, and the strong scientific research atmosphere after my enrollment have all been of great help to me. Continuous scientific research, including in my work, is also the process of my continuous education, which has greatly improved me.

4. Is your family supportive to you? What do you think is the most critical support?

My family has given me great support while I focus on my research, which has enabled me to focus more on my research work. At the same time, my family's care and daily compendiousness can help me maintain a good psychological state when I am sometimes stuck in the bottleneck of scientific research.

5. In addition to family, what support from the state or the unit do you think has a great impact on you?

From a large perspective, my achievements are achieved under the support of the national talent policy. The talent policy and resource support in ethnic minority areas play an important role in stimulating the vitality of our continuous scientific research and innovation. At the same time, the resource preference in the process of scientific research at all stages helps us to continue to play their respective heat. In addition, the good scientific research atmosphere provided by the state and the attention paid to our scientific research units have a profound impact on me.

6. What do you pay attention to and pursue in your academic research?

I pay attention to the more realistic things; I hope my research field can step by step, constantly make new breakthroughs, for the medical development of our country, for the health of the people to make their own pygmy contribution.

7. In your academic research, how do you grasp the relationship between academic research and jurisdiction?

In my opinion, jurisdiction is also necessary to some extent. Whether a research direction or a research field is valued or not will greatly affect the depth and commitment of the scholarship. Of course, our predecessors were able to achieve great achievements under difficult conditions, but it is inevitable that the research fields that are more valued, or the research fields that are more cutting-edge and relevant from an international perspective, will have more resources. Jurisdiction can give academic support to a certain extent, but it should still focus on the academic itself.

8. In your opinion, what aspects of educational support in ethnic minority areas have a great impact on the formation of talents?

As I mentioned above, the talent policy, talent plan and talent incentive in ethnic minority areas all have an important impact on talents. Of course, there is still a big gap between Guangxi and some provinces in terms of investment in educational resources. We need to be aware of this reality. However, the investment in education and the development of ethnic minority areas are inseparable and interdependent, so in the future development, I believe that the policy will be more inclined to education, to provide a better environment for the growth of ethnic talents.

9. What personal qualities do you think are the key to your success?

Cooperation, innovation, willingness to accept new things and persistence.

10. What other factors do you think have contributed to your current success?

First of all, personal efforts and persistence are indispensable. Talents in the field of research, good teachers and friends met in the process of growth, and good foundation laid in the stage of basic education are of great significance to personal growth. In addition, it is also necessary to maintain a healthy body, maintain regular work and rest and good exercise habits, after all, the body is the capital of scientific research. On this basis, in the process of scientific research, we should be good at discovery and innovation, and grasp the problem, so as to go deeper.

Interviewee 5

1. Can you talk about your achievements so far?

I am currently serving as the vice Chairman of Guangxi Cardiovascular Society of Chinese Medical Association, and the editorial board of the journals of Guangxi Medicine, Minimally Invasive Medicine and New Clinical Medicine in China. I have presided over a number of provincial and department level scientific research projects, won the Guangxi Science and Technology Progress Award for three times, and written and published more than 50 academic papers. I have been to Japan, the United States, France, Germany, Singapore and Hong Kong for many times to participate in international academic conferences and to guide and carry out cardiac interventional surgery in hospitals at all levels in Guangxi, actively promoting the development of coronary artery disease intervention in Guangxi. I won the "Sixth Youth Science and Technology Award". He was awarded the honorary title of "Individual Meritorious Service for COVID-19 Prevention and Control" by the Health Commission of Guangxi Zhuang Autonomous Region in 20 years.

2. Has the education you received helped you a lot in achieving such great achievements?

Yes, it is.

3. Which stage of your educational experience do you think helped you the most?

I think the postgraduate education has helped me the most.

4. Is your family supportive to you? What do you think is the most critical support?

The most critical support of my family is that it provides me with a good learning environment and good guidance.

5. In addition to family, what supports from the country or the organization do you think have a great impact on you?

The state attaches great importance to ethnic minority areas, which I have seen in my eyes over the years. Ethnic minority areas can be valued and treated favorably, which has a great impact on the development of ethnic minority areas. While ethnic minority areas are developing, I have also been greatly affected. In addition, the good atmosphere of the unit also has a great influence on me personally.

6. What do you focus on and pursue in your academic research?

I focus on practice. I hope I can make my own contribution to the development of medicine by being more downhearted and pragmatic, so as to better treat patients and save people.

7. In your academic research, how do you grasp the relationship between academic research and authority?

I only want to concentrate on academic research, and do not want to be given tasks by the organization, which will affect my academic research; If possible, I hope this aspect will not distract me too much.

8. In your opinion, what aspects of education support in ethnic minority areas have a great impact on the formation of talents?

The emphasis on education in ethnic minority areas is the basis for the growth of talents. Secondly, ethnic minority areas provide financial aid to poor students, invest resources and funds in education, and promote the fairness of education. I think these are very important.

9. What personal qualities do you think have been the key to your success?

Keeping Practice and working hard.

10. What other factors do you think have contributed to your current success?

I always believe that pragmatic is the key to success, and personal innate qualifications are also needed. Of course, personal growth is always inseparable from the whole environment, whether it is the talent policy of ethnic minority areas, resource allocation, research conditions, team support of work units, or the attention and recognition of the whole society to our industry, all play an important role in personal growth.

Interviewee 6

1. Could you tell me something about your achievements so far?

I have worked and studied with the world's best scientists in the world's most advanced research institutions for many years. I have rich theoretical knowledge and experimental skills in cell biology, epigenetics and biochemistry. I have a quick scientific thinking and have published many high-level articles as the first author or corresponding author. Published in Nature Communications (impact factor

11.47),JNCI(impact factor 14.336),Molecular Cell(impact factor 14.194), PNAS (impact factor 9.737), J Cell Biol (impact factor 9.921), J BiolChem (impact factor 5.328) and other high-impact journals, with a cumulative SCI impact factor of about 82, a total citation rate of more than 300 times, and two US patents. The Center for Genome and Individualized Medicine, where I work, has obtained the qualification of ten national gene testing demonstration centers approved by the National Development and Reform Commission.

2. Has the education you have received helped you a lot in making such great achievements?

Yes, everyone has experienced different levels of education, education will have a profound impact on everyone's growth, I received a complete and systematic training to lay a profound theoretical foundation for today's scientific research work, let me gain the love of scientific research, I really enjoy the state of learning.

3. Which stage of education experience do you think has helped you the most?

The master's and doctoral education helped me the most, which allowed me to challenge the limit, devote myself to it, and gain a lot.

4. Is your family supportive to you? What do you think is the most critical support?

A lot of support, my family has been very supportive, especially during my postgraduate entrance examination; my family helped me to take care of my young children together, so that I did not have to worry about studying for the exam.

5. In addition to family, what kind of support do you think has a great impact on you from the country or the unit?

I am very grateful to Guangxi Medical University for attaching great importance to and cultivating me. In 2012, Professor Mo Zengnan, vice president of Guangxi Medical University and director of Genome and Individualized Medicine Research Center, kindly invited me to return to China and join the "genome medicine" research team, so that I can put what I have learned abroad into full use. As a native of Guangxi, I also want to contribute my humble strength to Guangxi, an underdeveloped region where talents and technologies are relatively backward. Now our research center has a very good research atmosphere, practical style and

excellent quality. The school has also provided us with sufficient guarantee, so that I can do scientific research without other distractions.

6. In your academic research, what do you pay attention to and pursue?

Based on the human genome, I want to integrate life science and clinical medicine, so that the research results of genome can be rapidly and efficiently transformed and applied to clinical medicine, so that people can evaluate their lives according to their genetic test results, adjust their lifestyles, find appropriate treatment drugs and methods, and create a better future.

7. In your academic research, how do you grasp the relationship between academic research and jurisdiction?

I think the expansion of authority can sometimes help us gain a broader vision, examine the direction of academic progress from a higher position, and facilitate the integration of resources for academic innovation.

8. In your opinion, in terms of education support in ethnic minority areas, what aspects have a great impact on the formation of talents?

In my opinion, education policies in ethnic minority areas should focus on providing more opportunities for practice and communication, so as to help cultivate more outstanding young people to find the direction of struggle and become high-level talents with stronger skills.

9. What personal qualities do you think are the key to your success?

I think it's my persistence. Scientific research is a process of accumulation, but also a long-term battle. It comes from the long-term accumulation day after day in the laboratory, but also from the full cooperation and persistent exploration of individuals and teams. I have always maintained a belief that I will never give up until I reach the goal, a determination to go all out to scale the peak, and a spirit of persistent pursuit. Although the research work is boring and monotonous, and there are countless difficulties, the joy of solving problems attracts me and can stimulate my stronger combat effectiveness.

10. do you think that in addition to what factors have been a great help to your achievements today?

I think in addition to education, family, government, school and my own perseverance, there is also the team supporting each other. A single flower does not

make a spring. A hundred flowers bloom together in a garden. During my study and work, I deeply felt the importance of teamwork. Forming common research interests and reasonable division of labor helped me grow up faster. In particular, I chose the field of genomic medicine, which is a typical big scientific project and urgently needs interdisciplinary, cross-university and cross-national collaborative research. The one who collaborates first and best will seize the opportunity.

Interviewee 7

1. Could you tell me something about your achievements so far?

My research interest is in power electronics technology and electron beam processing equipment. I have completed 5 national, 8 provincial, more than 10 prefecture-level and dozens of horizontal research projects. I have won one first prize of technical invention in Guangxi Province, one second prize of Science and Technology Progress of the Ministry of Machinery, one third prize of Science and Technology progress in Guangxi Province, and one first prize and one second prize of science and Technology progress in Guilin City. More than 20 national invention patents have been obtained; He has published more than 10 scientific and technological papers included in EI.

2. Has the education you have received helped you a lot in making such great achievements?

The role of education is huge. Education not only brings me knowledge, but also brings me the improvement of learning ability, the pursuit of truth, the persistence of good and the yearning for beauty. Education also enables me to gain an independent personality and perseverance of willpower.

3. Which stage of your education experience do you think helped you the most?

In my opinion, my undergraduate education helped me the most, which made me, feel the importance of knowledge, and choose the research direction of my life.

4. Is your family supportive of you? What do you think is the most critical support?

My family is very supportive of my work, and their companionship is the most critical support for me. It makes me have a warm harbor.

5. In addition to family, what kind of support do you think has a great impact on you from the country or the organization?

I am very grateful to Guilin University of Electronic Science and Technology for your support. I have been working in Guilin University of Electronic Science and Technology for more than 20 years. The university has always cared and supported my work, helped me to apply and transform the achievements, and enabled me to work conscientiously and conscientiously.

6. In your academic research, what do you pay attention to and pursue?

Power electronics technology can make rational use of and optimize the allocation of power system resources, so as to optimize the use of electric energy. The transformation of power electronics technology in traditional industries is an inevitable requirement of the development of our times. Electron beam processing equipment is an important interface between mechanical and electrical equipment and computers, which can provide an important starting point for the transformation of traditional industries to emerging industries. I hope to contribute to the "Industry 4.0" era of our country through my own research and production transformation.

7. In your academic research, how do you grasp the relationship between academic research and jurisdiction?

In my opinion, jurisdiction and academic research can promote each other, so we should be good at establishing a positive cycle between the two and strive for a broader space for our academic research.

8. In your opinion, in terms of educational support in ethnic minority areas, what aspects have a great impact on the formation of talents?

In my opinion, education support in ethnic minority areas should be clear about the direction of shortage of development, consciously cultivate corresponding talents, and realize the rapid development of ethnic minority areas.

9. What personal qualities do you think are the key to your success?

I think it is a strong will power. The road to success must be full of thorns, no one is not relying on a strong sense of power to cut through the thorns and waste the courage of the sword can reach the top of the mountain overlooking the scenery.

10, do you think that in addition to what other factors to you have achieved today's achievements have a greater help?

I think there is also choosing the right development path. We should not always follow others. Instead, we should observe the world by ourselves, find out what is of interest to the development of our times and our country, and strive for this goal. Therefore, it is very important to pay attention to national policies.

Interviewee 8

1. Could you tell me something about your achievements so far?

I have long been engaged in the research and development of new carbon materials, supercapacitor and lithium ion battery/sodium ion battery electrode materials, non-ferrous metallurgy, and have undertaken more than 20 scientific research projects such as the National Natural Science Foundation of China, the Guangxi Innovation Driven Development Project (major science and technology project), the Guangxi Scientific Research and Technology Development Program project, the Guangxi Science Foundation and horizontal topics; I have successfully researched and developed the manufacturing technology of nano-carbon coated lithium iron phosphate material and successfully transferred the technology. For the first time, starch-based porous carbon materials were prepared using starch as carbon source. The "anti-oxidation coating technology for anodic coating of aluminum electrolysis industry" and other high and new technologies have been developed, which have created huge production benefits for enterprises. In Journal of Materials Chemistry A, ACS Applied Materials & Interfaces, ACS Sustainable Chemistry & Engineering, Chemical More than 60 academic papers have been published in well-known journals such as Engineering Journal, Electrochemical Acta and Journal of Power Sources, among which 31 are the first author or corresponding author. He has obtained more than 20 authorized national invention patents. He has won one second prize of technological invention of Guangxi Zhuang Autonomous Region (ranking 1) and one of the 11th Guangxi Youth Science and Technology Award.

2. Has the education you received helped you a lot when you made such great achievements?

Education is very important to me, not only the professional course education I received during my bachelor's degree and doctoral degree, but also the practical

education I gained in the experiment. Education enables me to keep making continuous progress and always move forward.

3. Which stage of education experience do you think has helped you the most?

In my opinion, the educational experience during my doctoral period helped me the most, which allowed me to systematically master research methods and laid a solid foundation for my current scientific research.

4. Does your family support you a lot? What do you think is the most critical support?

My family is very supportive of my research. I think the most important thing is that they always believe in me and give me the warmth of my family.

5. In addition to family, what supports from the state or the organization do you think have a great impact on you?

I am very grateful to Guangxi Normal University for its emphasis and cultivation on me. After my doctorate, I came to teach in Guangxi Normal University. During my teaching period, the university has given me great support and provided me with perfect experimental facilities, so that I can have no other distractions on the road of scientific research.

6. In your academic research, what do you pay attention to and pursue?

I am mainly engaged in the theoretical and applied research of electrochemical energy materials and devices. My patented technology "Preparation method of an iron-bearing compound coated lithium manganate cathode material" has solved the technical problem of short cycle life of lithium manganate cathode material for lithium-ion batteries, and won the 2021 China Patent Excellence Award. I hope to continue to scale new heights, achieve major breakthroughs in new energy batteries, transform the achievements into applications, and make the application produce greater efficiency.

7. In your academic research, how do you grasp the relationship between academic research and authority?

I think academic achievements can sometimes promote the development of authority, and authority can help me better think about the transformation and application of academic research, so as to achieve win-win progress.

8. In your opinion, in terms of education support in ethnic minority areas, what aspects have a great impact on the formation of talents?

Guangxi is an ethnic region. In recent years, I have seen that Guangxi has introduced many educational policies to help talent development, which can effectively promote the development of high-level talents.

9. What personal qualities do you think are the key to your success?

I think it's my persistence. Do not invite frequent visitors at the door, and do not see books at the seat. Academic research is to continue to climb the peak, I will be with the experiment, and scientific research as a companion, under the lamp on the paper, seize the day, continue to strive for the goal in the heart.

10. In addition, what other factors do you think have helped you achieve today's achievements?

I think in addition to education, family, government, school and personal factors, there is another very important factor, which is to seize the opportunity of The Times. Each era has its own different mission. We should be good at catching the pulse of The Times, devote ourselves to the fields needed by the motherland and people, and make life better with our own sweat and wisdom.

Interviewee 9

1. Could you tell me about your achievements so far?

My research interests include high-energy astrophysical gamma-ray bursts, dense star objects, and gravitational waves. I have published 38 SCI papers (28 papers are SCI Zone 1 papers and 7 papers are SCI Zone 2 papers according to the division of Chinese Academy of Sciences in 2018). My paper has been cited more than 1300 times in the review articles and research papers of *Ann.Rev.Astron.Astrophys* and other journals (retrieved from the International Astronomical Database System ADS), and the H-factor is 18. The maximum number of citations of the first author was 100, and three papers of the first author were cited more than 50 times. Some academic achievements have been written into The textbook "The Physics of Gamma-Ray Bursts" and the 21st Century Theoretical Physics and interdisciplinary frontier series "Accretion and Jet of Black Hole Systems".

2. Has the education you have received helped you a lot in achieving such great achievements?

Education is very important to me. When I was a child, I was exposed to astronomy in my science class. I developed a strong interest in astronomy and took the initiative to develop my knowledge and ability in astronomy and receive education in astronomy, which enabled me to achieve today's achievements.

3. Which stage of education experience do you think has helped you the most?

In my opinion, my doctoral education helped me the most, which exposed me to a lot of cutting-edge knowledge in astronomy and greatly broadened my horizons.

4. Does your family support you a lot? What do you think is the most critical support?

My family is very supportive, and the most important thing is that they support me in the field of astronomy, which is a bit esoteric, but they still choose to believe in me.

5. In addition to family, what kind of support from the state or organization do you think has a great impact on you?

I would like to thank Guangxi University for the cultivation of me. I also studied in Guangxi University for my master's degree and taught there after graduation. The university has given me a lot of help and support, so that I can concentrate on research.

6. In your academic research, what do you pay attention to and pursue?

I hope to continue to work hard in the field of astronomy, carry out basic research towards the frontier of major astrophysics science, serve the national major science program technology research and load development, solve the bottleneck technology, and strive to solve the outstanding physical problems such as gamma burst and gravitational wave source.

7. In your academic research, how do you grasp the relationship between academia and jurisdiction?

As a young scholar, I still focus on my academic achievements at present, and I also believe that the expansion of authority can help the development of academia.

8. In your opinion, what aspects of education support in ethnic minority areas have a great impact on the formation of talents?

Education in ethnic minority areas should strengthen innovative cultivation, open the eyes of talents, and establish a long-term education mechanism, so that talents in each field can find their own direction of struggle.

9. What personal qualities do you think are the key to your success?

I think it's my spirit of inquiry. I think only by keeping a state of mind of endless learning can I be willing to forge ahead and continue to move forward even when encountering difficulties. Being curious about things is the key to maintaining the power of development. If you are unwilling to explore and content with the status quo, even if you have the ability and quality, you will be gradually surpassed by those who are not as capable as them but have great aspirations.

10. What other factors do you think have contributed a lot to your achievement today?

I think there is also effective teamwork. Scientific research can never be done by one person. There is a saying that a person walking alone can go fast, while a group of people walking can go far. Astronomy, especially frontier astronomy, is very much in need of teamwork. Team members should work together in one direction and promote each other, so as to promote the effective progress of the project and harvest more academic results.

Interviewee 10

1. Could you tell me about your achievements so far?

My research direction is water pollution control and renewable energy. I have presided over and participated in the research of a number of National Natural Science Foundation of China projects, published more than 20 papers, and was selected into the "100 Talents Program" for introducing overseas high-level Talents in Guangxi.

2. Has the education you have received helped you a lot in making such great achievements?

Education has helped me a lot. In the process of receiving education, I have not only gained knowledge reserve, but more importantly, my learning ability has

been well exercised, which has become an indispensable basic ability in my scientific research.

3. Which stage of education experience do you think has helped you the most?

In my opinion, the education during my master's degree and doctoral degree has helped me the most, allowing me to find my love and do things that are valuable to the society.

4. Is your family supportive to you? What do you think is the most critical support?

My family's support to me is great, for me their most critical support is to accompany me, so that I can feel the warmth of the family after busy work.

5. In addition to family, what kind of support do you think has a great impact on you from the country or the organization?

I am very grateful to Guilin University of Technology for the trust and cultivation of me, providing convenient experimental conditions for my research, enabling me to explore my academic interests steadily. The support of the university has also enriched my heart, and I can make my own humble contribution to the cause of science and education integration.

6. In your academic research, what do you pay attention to and pursue?

I have been engaged in academic research mainly in the field of water pollution and renewable energy, which is very important for agriculture. From the perspective of agriculture, water purification irrigation is conducive to improving the output of agricultural and sideline products, improving economic benefits and promoting social development. Secondly, from the perspective of social development, the proposal of water treatment program has effectively improved the quality of water environment in some areas, improved the safety of drinking water through related technologies, and added protection for human health. I hope to effectively improve the problem of water pollution in China through sewage treatment and recycling, sludge into organic fertilizer and other ways, and contribute to the realization of sustainable development.

7. In your academic research, how do you grasp the relationship between academic research and jurisdiction?

At present, academic research is still mainly concentrated in the system. I believe that the scope of authority is important for academic research. The expansion of the scope of authority can help academic research obtain more resources, funds and manpower, and expand greater development opportunities and space.

8. In your opinion, in terms of educational support in ethnic minority areas, what aspects have a great impact on the formation of talents?

In my opinion, education support in ethnic minority areas also needs to strengthen the training of teachers. Only by establishing educators with higher level and more influential leadership can we provide children in ethnic minority areas with better future goals and encourage them to continue to develop towards their dreams.

9. What personal qualities do you think are the key to your success?

I would say persistence. Success is never casually can be realized, people do a thing, cannot be immediately successful, so cannot adhere to the key factor of success. Those who have achieved success, everyone is to experience a lot of hard course and longtime of persistence to reach the end of the success, even genius, also cannot be achieved overnight. In my study and academic road, encountered a lot of difficulties, I always believe that as long as adhere to the other side of the victory.

10. In addition, what other factors do you think have helped you achieve today's achievements?

I think it's a good mentality. This is reflected in the choice of their favorite career, choose the target and continue to struggle, in the process of struggle to seize the fleeting opportunity, endure loneliness, continue to learn, practice internal skills, with dreams to support them constantly move forward, always maintain an enterprising attitude.

The analysis result of the interview content

According to the analysis result of the interview content, 10 high-level talents are agreed that their high-level is inseparable from family factors, educational factors, social factors, and personal factors. Based on the four variables, the researcher proposed a guide for the development of high-level talents in Guangxi universities, which contains 21 measures, including five elements of educational factors, six elements of social factors, six elements of personal factors and four elements of family factors, as shown in the following table4.7:

Table 4.7 Guidelines for development of high-level talents of universities in Guangxi

Guidelines	Measures
Family factors	1 Family atmosphere: To advocate a harmonious family atmosphere, we should be strict, kind, and benevolent, spoil but not drown, be good at controlling the emotions of family members, and establish a good communication mechanism to create a good family environment for the growth of talents.
	2 Family resources: Advocate the use of effective methods to mobilize and integrate resources among family members, make reasonable distribution in economic, emotional, information and education, establish a good family living environment, and provide adequate protection for the growth of talents.
	3 Family education: Advocate sinology, establish good family customs and rules, and do a good job in all-round education of talents in morality, intelligence, physical beauty, and labor. For the growth of talents to set up a good world outlook, outlook on life.
	4 Family change: Should promote family stability and reduce unnecessary family changes such as divorce, gambling, drug addiction and crimes. To enhance family emotional communication and exchange, provide support and care in cultural and spiritual life, and create a more harmonious family atmosphere.

Table 4.7 Guidelines for development of high-level talents of universities in Guangxi (Continue)

Guidelines	Measures
Personal factors	1 Inner qualities: Should strengthen the cultivation of scientific spirit, academic ethics, and personal qualities of high-level talents, and encourage the scientific spirit of being innovative, daring to question and daring to be the first, as well as the will and perseverance of being unafraid of setbacks and failures.
	2 Academic habits: Advocate the establishment of independent research spirit, meticulous work attitude and rigorous scientific research style, and contribute more academic achievements.
	3 Intelligence and other innate factors: Advocate eugenics and eugenics; provide quality education and intellectual training, scientific nutrition.
	4 Health condition: Advocating high-level talents to develop healthy habits, exercise daily, eat on time, eat reasonably, and get enough sleep will help to develop a healthy body.
	5 Mental state: Advocating the establishment of a positive outlook on life and values, actively interacting with people, cultivating reasonable interests and hobbies, actively exercising and releasing stress to ensure the healthy growth of talents.
	6 Awards: Give full encouragement to high-level talents, and give them not only spiritual rewards, but also material incentives, giving them appropriate dignity and social status, so as to enhance and motivate high-level talents' enthusiasm and initiative in academic study.

Table 4.7 Guidelines for development of high-level talents of universities in Guangxi (Continue)

Guidelines	Measures
Social factors	1 Talent policy: Introduce incentivizing talent policy to create a favorable environment for talent development in innovation and entrepreneurship, education, medical care, housing and other fields, set goals and plan paths for talent growth, and ensure talent development.
	2 Resource allocation: Optimizing the allocation of talent training resources and creating a reasonable and fair environment for resource allocation are extremely beneficial to the growth of talents. Reasonable distribution of education, teachers, funds, school environment and other social resources can promote the full growth of talents.
	3 Research conditions: Fully meet the research conditions of high-level talents, and give priority to the allocation of research teams, funds, and laboratories according to research requirements.
	4 Team support: Introduce outstanding talents to join the scientific research team by increasing the funding and reward investment of scientific research achievements, improve the management system and evaluation of scientific research team, and support scientific research with high-quality and high-level team.
	5 Respect and cherish the academic life of high-level talents, do not force high-level talents to interrupt scientific research, respect the law of scientific research work, and give high-level talents enough time for academic research.

Table 4.7 Guidelines for development of high-level talents of universities in Guangxi (Continue)

Guidelines	Measures
	<p>6 Academic jurisdiction: Should respect the laws of scientific research work, give clear jurisdiction over the research projects and results of high-level talents, respect their will, do not force them to assume administrative functions, and give full play to the professional knowledge of high-level talents.</p>
<p>Educational factors</p>	<p>1 Compulsory education: Should advocate the all-round development of moral education, intellectual education, physical education, aesthetic education and labor education to lay a solid foundation for the growth of talents.</p>
	<p>2 Undergraduate education: Advocate professional knowledge education and practice ability cultivation. Should pay attention to the initiative of mining talent, encourage active participation in practice activities, improve the quality of talent training.</p>
	<p>3 Master and doctoral education: Should promote knowledge education in frontier areas, cultivate talents' interest in scientific research, stimulate their enthusiasm for scientific research and creativity, and guide them to actively explore the unknown world.</p>
	<p>4 Overseas study education: Advocate experiencing different cultures and research thinking in different countries, strengthen academic and cultural exchanges, and learn advanced foreign science and technology and excellent management experience.</p>

Table 4.7 Guidelines for development of high-level talents of universities in Guangxi (Continue)

Guidelines	Measures
	5 Continuing Education: Advocates the lifelong and learning concept of continuing education, combines work with re-education, and encourages talents to continuously improve their master's degree, work efficiency and knowledge reserve.

Part 4: The analysis result about the evaluation of adaptability and feasibility of the guidelines for development of high-level talents of universities in Guangxi.

The researchers organized a seminar for 10 experts from top university to evaluate the adaptability and feasibility of the guidelines. The evaluation result are as follows:

Table 4.8 Basic information of experts

No	Name-surname	Gender	Age	Workplace
1	Professor Lyu Yushen	male	68	Guangxi Normal University
2	Professor Tang Pingqiu	male	55	Guilin University of Electronic Technology
3	Professor Dr.Rei Depeng	male	60	Guangxi University
4	Professor Dr.Tang Dehai	male	61	Guangxi University for Nationalities
5	Professor Dr.Pan Shigui	male	54	Guangxi Institute of Administration
6	Professor Chen Yujing	female	43	Guilin University of Technology
7	Professor Dr.Wang Bo	female	41	Guangxi University
8	Professor Dr.Xu Chengchang	male	55	Guangxi University
9	Professor Dr.Deng Jun	male	59	Guilin University of Technology
10	Professor Dr.Xu Jian	male	50	Nanning Normal University

Table 4.9 Number of people and percentage of experts

(n = 10)

	Personal Information	Number of people	Percentage
Gender	Male	8	80
	female	2	20
	Total	10	100
Age	50-70	7	70
	30-49	3	30
	Total	10	100
Title	Professor	8	80
	Associate professor	2	20
	Total	10	100
Work experience	10-15 years	2	20
	15-30 years	2	20
	More than 30 years	6	60
	Total	10	100

According to Table 4.9, showed that the majority expert were 8 males, accounting for 80%, and 2 females, accounting for 20%. The age of expert was mainly 50-70 years old for 7 people, accounting for 70%. Title of expert was mainly Majors for 8 people, accounting for 80%. Work experience of expert was mainly more than 30 years for 6 people, accounting for 60%.

Table 4.10 The adaptability and feasibility of the guidelines for development of high-level talents of universities in Guangxi

Measures	Adaptability			Feasibility		
	\bar{x}	S.D	result	\bar{x}	S.D	result
Educational factor						
1. Should advocate the all-round development of moral education, intellectual education, physical education, aesthetic education and labor education to lay a solid foundation for the growth of talents.	4.67	0.598	high	4.66	0.588	high
2. Advocate professional knowledge education and practice ability cultivation. Should pay attention to the initiative of mining talent, encourage active participation in practice activities, improve the quality of talent training.	4.62	0.493	high	4.61	0.499	high
3. Should promote knowledge education in frontier areas, cultivate talents' interest in scientific research, stimulate their enthusiasm for scientific research and creativity, and guide them to actively explore the unknown world.	4.56	0.499	high	4.57	0.501	high

Table 4.10 The adaptability and feasibility of the guidelines for development of high-level talents of universities in Guangxi (Continue)

Measures	Adaptability			Feasibility		
	\bar{X}	S.D	result	\bar{X}	S.D	result
4. Advocate experiencing different cultures and research thinking in different countries, strengthen academic and cultural exchanges, and learn advanced foreign science and technology and excellent management experience.	4.51	0.486	high	4.53	0.497	high
5. Advocates the lifelong and learning concept of continuing education, combines work with re-education, and encourages talents to continuously improve their master's degree, work efficiency and knowledge reserve.	4.50	0.476	high	4.51	0.487	high
Social factors						
1. Introduce incentivizing talent policy to create a favorable environment for talent development in innovation and entrepreneurship, education, medical care, housing and other fields, set goals and plan paths for talent growth, and ensure talent development.	4.49	0.513	high	4.41	0.514	high

Table 4.10 The adaptability and feasibility of the guidelines for development of high-level talents of universities in Guangxi (Continue)

Measures	Adaptability			Feasibility		
	\bar{X}	S.D	result	\bar{X}	S.D	result
2. Optimizing the allocation of talent training resources and creating a reasonable and fair environment for resource allocation are extremely beneficial to the growth of talents. Reasonable distribution of education, teachers, funds, school environment and other social resources can promote the full growth of talents.	4.45	0.534	high	4.43	0.536	high
3. Fully meet the research conditions of high-level talents, and give priority to the allocation of research teams, funds and laboratories according to research requirements.	4.44	0.567	high	4.42	0.578	high
4 .Introduce outstanding talents to join the scientific research team by increasing the funding and reward investment of scientific research achievements, improve the management system and evaluation of scientific research team, and support scientific research with high-quality and high-level team.	4.47	0.578	high	4.48	0.506	high

Table 4.10 The adaptability and feasibility of the guidelines for development of high-level talents of universities in Guangxi (Continue)

Measures	Adaptability			Feasibility		
	\bar{X}	S.D	result	\bar{X}	S.D	result
5. Respect and cherish the academic life of high-level talents, do not force high-level talents to interrupt scientific research, respect the law of scientific research work, and give high-level talents enough time for academic research.	4.45	0.576	high	4.47	0.516	high
6. Should respect the laws of scientific research work, give clear jurisdiction over the research projects and results of high-level talents, respect their will, do not force them to assume administrative functions, and give full play to the professional knowledge of high-level talents.	4.48	0.566	high	4.49	0.526	high
Personal factors						
1. Should strengthen the cultivation of scientific spirit, academic ethics and personal qualities of high-level talents, and encourage the scientific spirit of being innovative, daring to question and daring to be the first, as well as the will and perseverance of being unafraid of setbacks and failures.	4.39	0.534	high	4.37	0.478	high

Table 4.10 The adaptability and feasibility of the guidelines for development of high-level talents of universities in Guangxi (Continue)

Measures	Adaptability			Feasibility		
	\bar{X}	S.D	result	\bar{X}	S.D	result
2. Advocate the establishment of independent research spirit, meticulous work attitude and rigorous scientific research style, and contribute more academic achievements.	4.32	0.546	high	4.35	0.511	high
3. Advocate eugenics and eugenics, provide quality education and intellectual training, scientific nutrition.	4.33	0.567	high	4.36	0.532	high
4. Advocating high-level talents to develop healthy habits, exercise daily, eat on time, eat reasonably, and get enough sleep will help to develop a healthy body.	4.37	0.513	high	4.37	0.512	high
5. Advocating the establishment of a positive outlook on life and values, actively interacting with people, cultivating reasonable interests and hobbies, actively exercising and releasing stress to ensure the healthy growth of talents.	4.36	0.520	high	4.38	0.513	high

Table 4.10 The adaptability and feasibility of the guidelines for development of high-level talents of universities in Guangxi (Continue)

Measures	Adaptability			Feasibility		
	\bar{X}	S.D	result	\bar{X}	S.D	result
6. Give full encouragement to high-level talents, and give them not only spiritual rewards, but also material incentives, giving them appropriate dignity and social status, to enhance and motivate high-level talents' enthusiasm and initiative in academic study.	4.37	0.514	high	4.36	0.513	high
Family factor						
1. To advocate a harmonious family atmosphere, we should be strict, kind and benevolent, spoil but not drown, be good at controlling the emotions of family members, and establish a good communication mechanism to create a good family environment for the growth of talents.	4.51	0.657	high	4.49	0.599	high
2. Advocate the use of effective methods to mobilize and integrate resources among family members, make reasonable distribution in economic, emotional, information and education, establish a good family living environment, and provide adequate protection for the growth of talents.	4.56	0.701	high	4.53	0.601	high

Table 4.10 The adaptability and feasibility of the guidelines for development of high-level talents of universities in Guangxi (Continue)

Measures	Adaptability			Feasibility		
	\bar{X}	S.D	result	\bar{X}	S.D	result
3. Advocate sinology, establish good family customs and rules, and do a good job in all-round education of talents in morality, intelligence, physical beauty and labor. For the growth of talents to set up a good world outlook, outlook on life.	4.61	0.593	high	4.61	0.612	high
4. Should promote family stability and reduce unnecessary family changes such as divorce, gambling, drug addiction and crimes. To enhance family emotional communication and exchange, provide support and care in cultural and spiritual life, and create a more harmonious family atmosphere.	4.49	0.567	high	4.49	0.671	high
Total	4.44	0.574	high	4.44	0.574	high

Chapter 5

Conclusion Discussion and Recommendations

The research in high-level talents of universities in Guangxi. The objectives of this research were: 1) to study the current situation of high-level talents of university in Guangxi, 2) to develop the guidelines for development of high-level talents of universities in Guangxi, and 3) to evaluate the adaptability and feasibility of the guidelines for development of high-level talents of university in Guangxi, which including 4 following aspects: 1) family factors, 2) educational factors, 3) social factors, 4) personal factors. The sample group in this research was high-level talents from top 20 public universities. They were selected by stratified random sampling method 200 people. The Interview group was ten high-level talents. The research instruments were questionnaire, interview form and evaluation form. The statistic to analyze the data were percentage, average value and standard deviation. The conclusion, discussion and recommendations of this research are as follows:

Conclusion

The research in high-level talents of universities in Guangxi. The researcher summarizes the research results in each topic, details as follows:

Part 1 study the current situation of high-level talents of university in Guangxi.

Part 2 develop the guidelines for development of high-level talents of universities in Guangxi.

Part 3 evaluate the adaptability and feasibility of the guidelines for development of high-level talents of university in Guangxi.

Part 1 study the current situation of high-level talents of university in Guangxi.

The high-level talents of university in Guangxi in four aspects was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was educational factors, followed by social factors, and family factors was the lowest level.

Family factors was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was the influence of parental education on talent formation, followed by the influence of family social (network) relationships on talent formation, and the influence of family pressure on talent formation after marriage was the lowest level.

Educational factors was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was the impact of educational resources provided at undergraduate level on the formation of human resources, followed by the influence of undergraduate educational institution selection on talent formation, and the impact of interdisciplinary educational resources on talent formation was the lowest level.

Social factors was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was the influence of the situation of talent incentive plan in minority areas on talent formation, followed by the influence of talent policy in minority areas on inspiring talent innovation and talent forming vitality, and the influence of social resource rationing on the formation of growing talents and the influence of citation times of published papers on talent formation in academic life cycle was the lowest level.

Personal factors was at high level. Considering the results of this research aspects ranged from the highest to lowest level were as follow: the highest level was The impact of a strong position on talent formation, followed by The influence of good scientific research habits on talent formation, and the impact of clarity of purpose on talent formation and the influence of academic honors earned during the work phase on talent formation was the lowest level.

Part 2 develop the guidelines for development of high-level talents of universities in Guangxi.

the researcher proposed the development of high-level talents in Guangxi universities based on four variables, which contain 21 measures, respectively 5 measures of educational factors, 6 measures of social factors, 6 measures of personal factors, and 4 measures of family factors.

Part 3 evaluate the adaptability and feasibility of the guidelines for development of high-level talents of university in Guangxi.

The expert group evaluated the adaptability of the development guide for high-level talents in Guangxi universities through the form of evaluation form, and the result of its evaluation is that the guide is rated as high level.

Discussion

1. Discussion of educational factors

"A hundred-year plan, education is the foundation" Education is the future of a country and a nation. Good education can train excellent talents in all walks of life for the country, who will become the elite of the industry and the backbone of the society when they grow up. School education is an important factor in the growth of talents. Schools should not only impart subject knowledge, but also focus on the development of students' minds, creative abilities and social skills. When children are exposed to a wider range of knowledge and ideas in school, it often stimulates their interest and improves their academic performance and personal qualities." It takes ten years to grow a tree, but a hundred years to grow a man", to become a high-level talent, one must receive systematic learning. From compulsory education to higher education, education abroad and continuing education, people can only become useful talents in the society eventually if they keep learning and receiving education. In general, the educational factors in the growth of talents are multifaceted, besides the school education referred to in this paper, there are also social education, family education and personal self-education. These educational factors can promote and

complement each other to achieve comprehensive, balanced and sustainable development of talents.

2. Discussion of social factors

Social factors in the growth of high-level talents in colleges and universities mainly refer to various social conditions and environments, including political, economic, cultural, and technological factors, except schools. Policy environment refers to the national and local policy support and preferential measures for high-level talents, including taxation, housing, medical care, children's education, etc. With the policy support, high-level talents in colleges and universities can enjoy better living and working conditions, so that they can give better play to their talents and creativity. Economic conditions refer to the influence of socio-economic status of high-level talents in colleges and universities, including salary level, title promotion, career prospects, etc. High-level talents with good economic conditions can focus more on academic research and thus improve their level and academic achievement. Cultural environment refers to the social recognition and esteem of knowledge and cultural values. In a social environment that values knowledge and culture, high-level talents in colleges and universities will be more respected and appreciated, so that they can be more actively engaged in academic research and discipline development. Technological environment refers to the influence of social technology level, including information technology, communication technology, biotechnology and other aspects. High-level talents in colleges and universities can carry out more in-depth research work and improve the ability and level of scientific and technological innovation in the modern technological environment.

To sum up, there are various social factors in the growth of high-level talents in colleges and universities, and all these factors have important influence and effect on the growth and development of high-level talents. Universities should provide better cultivation and support conditions for high-level talents on the basis of various social factors to promote the overall development and innovation ability of high-level talents.

3. Discussion of personal factors

The growth of high-level talents is a long and challenging process. In addition to the personal factors, I have referred to, high-level talents should also have an

innovative mindset. Innovation is an important factor to promote social and economic development, and high-level talents should have the keen insight to recognize where the problems are and propose appropriate solutions. They should constantly try new methods and ways of thinking in order to enable themselves to succeed in a competitive market environment. At the same time high-level talents should also possess leadership skills. High-level talent must be able to effectively lead a team and set a good example for others to follow. When leading a team, high-level talent should have a clear goal, vision, and plan to be able to guide the team forward. High-level talent should also have strong resilience. A high-level talent's career is full of changes, including various challenges and adversities. During this process, high-level talent must have strong conviction and perseverance to enable them to cope with various pressures and difficulties, overcome difficulties and seize opportunities. Finally, high-level talents should focus on lifelong learning. High-level talents should realize that learning is a lifelong career, and they should actively seek new knowledge, skills and experience, and constantly update their knowledge base. In the learning process, high-level talents should have the ability of self-reflection and self-assessment so that they can better understand their strengths and weaknesses and improve them. In conclusion, the growth of high-level talents is closely related to personal factors. By possessing innovative thinking, leadership, resilience and lifelong learning traits, high achievers can overcome various obstacles and achieve professional success.

4. Discussion of family factors

The growth and development of high-level talents in colleges and universities are inseparable from their personal background and family factors. Family factors play a vital role in the growth process of high-level talents. First of all, family plays a vital role in the formation of personal values and personality traits of high-level talents. Good family education can promote high-level talents to develop excellent moral, ethical and professional conduct. The family environment can also influence the character and behavioral habits of high-level talents, such as self-discipline, patience, perseverance and sense of responsibility, which are the keys to successfully crossing difficult bottlenecks. Second, family support and encouragement can enhance the innovation and pioneering spirit of high-level talents. Family

encouragement and support can motivate high-level talents to try new things, to explore unknown areas, and to have perseverance in the face of difficulties. The support and encouragement from the family also makes high-level talents understand that they are valued, and this support and security from the family is the motivating force for high-level talents to overcome difficulties and challenges. Thirdly, family education plays a decisive role in the choice and development of high-level talents' career. Family environment and family education provide a favorable condition for high-level talents to have sufficient access to a variety of knowledge and skills in different fields. Acquiring these knowledge and skills will make high-level talents more professionally competent, which in turn can lay the foundation for them to seek more and better career development opportunities. Finally, family can also provide security and support when high-level talents face difficulties and challenges. Some high-level talents may encounter setbacks and difficulties in their careers, and the care and support of family members can help them regain confidence, overcome difficulties and move on. In short, family factors can often create a good environment and conditions for the growth and development of high-level talents. High-level talents need to use this advantage of family to fully explore their potential and grow and develop in their career. At the same time, in the process of growth, high-level talents should also contribute to their families and give back to them.

Recommendations

In view of the four factors affecting the development of High-level talents in Guangxi universities the following suggestions are put forward:

Educational factors: among the educational factors, the significant positive effect of 12-year compulsory education, undergraduate education, master and doctoral education, overseas education, and continuing education on the cultivation of high-level talents has been verified. The expert group's suggestions include:

1) 12-year compulsory education is the basis of good academic habits of talents, and good learning atmosphere and teachers have great influence on students. Minority areas need to give priority to the construction of regional.

2) the selection of institutions and education and teaching resources in the undergraduate education stage for talents to carry out academic research provides a stage and space, which is the basis and top priority of talent formation, and strengthening the school discipline construction and the tilt of educational resources is urgent and necessary.

3) The research atmosphere and the guidance of tutors during the postgraduate period are extremely important for personal academic study, and the research resources, research environment and attention are conducive to the cultivation of high-level talents.

4) Overseas education is of great help for high-level talents to cultivate their international vision, expand their research fields and research ideas. While increasing the introduction of talents in ethnic minority areas, some talents can be funded to study abroad through policy support and other means to absorb advanced knowledge.

5) Promoting the enhancement of interdisciplinary educational resources is conducive to the cultivation of interdisciplinary talents.

Social factors: Among the social factors, talent policy, resource allocation, research conditions, team support, academic life and academic jurisdiction have significant positive effects on the cultivation of high-level talents in universities and colleges in Guangxi. The panel's recommendations include:

1) accelerate the improvement of the identification policy, training policy and incentive plan for high-level talent cultivation, to effectively stimulate the vitality of talent innovation. To increase the policy tilt in the development of high-level talents.

2) Improve the overall allocation of resources in ethnic minority areas, especially the allocation of social resources in the growth stage of students, including good teaching infrastructure such as libraries, support the construction of major research laboratories, increase investment in scientific research, and provide a broader academic research stage for talents.

3) Improve the local economy, boost the community's attention to the quality of education, enhance the importance of scientific research institutions, through the support of scientific research facilities and equipment, funding conditions, improve

the scientific research conditions, so as to better safeguard the development of talent scientific research.

4) To create a good scientific research environment, excellent social atmosphere and perfect competition system, to promote the extension of academic life and the improvement of the quality of academic life of talents, in the academic life cycle set more perfect, refined honor content, encourage talents to better play academic vitality.

5) In the field of research selection, talents can choose more cutting-edge fields, strengthen international academic exchanges, choose interdisciplinary research fields, easier to achieve results.

Personal factors: Among personal factors, innate factors such as inner quality, learning habits, intelligence, health, mental state and awards have a significant positive impact on the growth of high-level talents. Experts suggest that:

1) Talents with the qualities of cooperation, innovation, self-confidence, positivity, tenacity, willingness to face difficulties and accept new things are more likely to achieve success. In terms of psychological state, Talents with positive mental state

2) To develop good research habits, learning habits, the formation of unique scientific thoughts and learning methods is more conducive to the formation of talents.

3) Intelligence and other innate factors also play an important role in the growth of talents, but from the data, the acquired efforts are also important, talents in the research field are more conducive to the formation of talents than those in basic disciplines.

4) Only with good physical condition can academic research be carried out more continuously and adapt to the intensity of scientific research; 5) Academic honors and other honors in different stages have a certain incentive effect on the formation of talents, among which academic honors in higher education and scientific research stage have more significance and incentive effect on the formation of talents.

Family factors: The significant positive effects of family atmosphere, family resources, family education and family changes on the cultivation of High-level talents in Guangxi universities are verified. The expert group suggests:

1) Pay attention to the family atmosphere in the growing environment, parents need to have proven education methods; whether it is critical education or praise education, they need to be cautious in the ways and methods.

2) Parents need to pay attention to the education of their children 2) parents need to pay attention to the education of their children, giving educational support in the growth stage is very important for the formation of talents; 3) After marriage, the family atmosphere, the spouse's interp.

3) Personal relationship, resource support, spiritual support, ideological compatibility, etc., all have an important impact on the development of talents.

4) Parents need to pay attention to the people, environment, and things that their children are exposed to during the growth stage. Positive family changes have a certain impact on the formation of talents, and vice versa.

Future research

Although the number of high-level talents in colleges and universities in Guangxi is not much, the quality is still guaranteed. Several high-level universities, such as Guangxi University, Guangxi Normal University and Guangxi University for Nationalities, have some well-known professors and scholars, who have good reputation and achievements in their respective fields, as well as high academic level. At the same time, however, compared with some domestic first-class universities, Guangxi universities still have a big gap in the aspect of high-level talents. Some high-level universities across the country have invested a lot of resources and energy in the introduction of high-level talents and have attracted and retained many outstanding teachers, researchers and scientists through various policies and measures. In this regard, universities in Guangxi need to strengthen the formulation and implementation of policies, improve the treatment and attractiveness of talents, to attract more high-level talents to join the cause of higher education in Guangxi. In the aspect of introducing overseas high-level talents, it is necessary to further

improve the attractiveness and conditions, to better promote the development of universities. In terms of independent training, we should strengthen the construction of colleges and universities in Guangxi, improve the hardware equipment and software facilities of colleges and universities in Guangxi, and create better conditions for the independent training of high-level talents in colleges and universities in Guangxi. The future research on high-level talents in Guangxi needs to be strengthened in the following aspects:

Step1: The improvement of data statistical means. It is necessary to establish and improve the statistical index system of high-level talents in Guangxi to improve the reliability and integrity of data sources.

Step2: The innovation of research methods and means. In order to better understand the status quo of high-level talents development in Guangxi, interdisciplinary and diverse methods, such as social network analysis and machine learning, are introduced into the research.

Step3: Strengthening policy implementation. In view of the gap between policy formulation and implementation of high-level talents in Guangxi, the supervision and evaluation of policy implementation should be strengthened, and the implementation of policy transformation should be strengthened. At the same time, it is necessary to strengthen the publicity of the role of high-level talents in the economic and social development of Guangxi, improve people's attention to high-level talents, to better inject the source power for the high-quality development of Guangxi.

Higher education institutions in Guangxi have deficiencies in terms of teaching level and discipline construction. However, with the increase of investment and policy support in recent years, higher education institutions in Guangxi are developing towards the goal of enhancing academic status and influence. Compared with some first-class universities in China, Guangxi's higher education institutions still have a big gap in the introduction of high-level talents. Especially when it comes to attracting high-level overseas talents, compared with some high-level universities in China, Guangxi's universities are not attractive enough. Therefore, according to this guide, Guangxi Zhuang Autonomous Region can focus on the training of high-level talents in colleges and universities in Guangxi, and effectively promote the development of

high-level talents in Guangxi from the perspectives of family, education, society, individuals, and other factors.

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Appendix

Appendix A

List of Specialists and Letters of Specialists Invitation for IOC Verification

List of experts

No	Name-Surname	Workplace
1	Lyu Yusheng	Guangxi Beibu Gulf Development Institute
2	Tang Pingqiu	Guilin University of Electronic Science and Technology
3	Professor Lei Depeng	Guangxi University
4	Professor Dr.Tang Dehai	Guangxi University for Nationalities
5	Professor Pan Shigui	Guangxi Executive College

Appendix B

Official Letter

ที่ อว ๐๖๔๓.๑๔/บพ ๗๐



มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ อีสาธภาพ ๑๕ แขวงทริภุญจี
เขตธนบุรี กรุงเทพฯ ๑๐๖๐๐

๒๐ เมษายน ๒๕๖๖

เรื่อง ขออนุญาตเผยแพร่ข้อมูลโดยการเข้าสัมภาษณ์

เรียน

สิ่งที่ส่งมาด้วย ๑.แบบสัมภาษณ์ จำนวน ๑ เล่ม

เนื่องด้วย Mr.Lyu Jun นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการบริหาร การศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์ เรื่อง “Guidelines for Development of High-level Talents of Universities in Guangxi” โดยมีคณะกรรมการ ที่ปรึกษาวิทยานิพนธ์ ดังนี้

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| ๑. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์ | ประธานที่ปรึกษาหลัก |
| ๒. ผู้ช่วยศาสตราจารย์ ดร.ภิญญาพัชญ์ ปลายักคทอง | อาจารย์ที่ปรึกษาร่วม |
| ๓. รองศาสตราจารย์ ดร.จิตวิสุทธิ์ วิมตติปัญญา | อาจารย์ที่ปรึกษาร่วม |

ในการนี้คณะกรรมการบริหารหลักสูตรฯ ได้พิจารณาเห็นว่าท่านเป็นผู้เชี่ยวชาญที่มีความรู้ ความสามารถที่จะให้ข้อมูล คำแนะนำอันเป็นประโยชน์ต่อการประเมินความเหมาะสมและความเป็นไปได้ของ นักศึกษาได้เป็นอย่างดี จึงขออนุญาตให้นักศึกษาเข้าสัมภาษณ์ และกำหนดวันเวลาแก่นักศึกษาที่ท่านสะดวก

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่นักศึกษาด้วยจะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร ๐-๒๔๗๓-๗๐๐๐ ต่อ ๑๘๑๔



ที่ อว ๐๖๔๓.๑๔/บท ๘๒

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ อีสรภาพ ๑๕ แขวงหิรัญรูจี
เขตธนบุรี กรุงเทพฯ ๑๐๖๐๐

๒๐ เมษายน ๒๕๖๖

เรื่อง เชิญเป็นผู้เชี่ยวชาญตรวจสอบความตรงเชิงเนื้อหาเครื่องมือในการทำวิทยานิพนธ์

เรียน Professor Pan Shigui

สิ่งที่ส่งมาด้วย ๑. คำโครงวิทยานิพนธ์ จำนวน ๑ เล่ม
๒. แบบสอบถาม จำนวน ๑ ชุด

เนื่องด้วย Mr.Lyu Jun นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการบริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์เรื่อง “Guidelines for Development of High-level Talents of Universities in Guangxi” โดยมีคณะกรรมการที่ปรึกษาวิทยานิพนธ์ ดังนี้

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| ๑. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์ | ประธานที่ปรึกษาหลัก |
| ๒. ผู้ช่วยศาสตราจารย์ ดร.ภิญญาพัชญ์ ปลากัดทอง | อาจารย์ที่ปรึกษาร่วม |
| ๓. รองศาสตราจารย์ ดร.จิตติวิสุทธิ์ วิมุตติปัญญา | อาจารย์ที่ปรึกษาร่วม |

ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity) ของเครื่องมือ เพื่อให้ได้เครื่องมือที่สมบูรณ์ที่สุด ทางบัณฑิตวิทยาลัยได้พิจารณาเห็นว่าท่านเป็นผู้ทรงคุณวุฒิ มีความรู้ความสามารถสอดคล้องกับหัวข้อการทำวิทยานิพนธ์ ดังกล่าวเป็นอย่างยิ่ง ซึ่งคำแนะนำของท่านจะเกิดประโยชน์ต่อการปรับปรุงแก้ไขในการสร้างเครื่องมือสำหรับการวิจัยของนักศึกษาให้มีคุณภาพและเหมาะสมเพื่อใช้ในการเก็บรวบรวมข้อมูลในการวิจัยต่อไป

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่นักศึกษาดังกล่าวจะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คมกร สว่างเจริญ)

คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา

โทร ๐-๒๕๗๓-๗๐๐๐ ต่อ ๑๘๑๔



ที่ อว ๐๖๔๓.๑๔/บพ ๘๑

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ อีสราภภาพ ๑๕ แขวงทรีเจริญ
เขตธนบุรี กรุงเทพฯ ๑๐๖๐๐

๒๐ เมษายน ๒๕๖๖

เรื่อง เชิญเป็นผู้เชี่ยวชาญตรวจสอบความตรงเชิงเนื้อหาเครื่องมือในการทำวิทยานิพนธ์

เรียน Professor Dr.Tang Dehai

- สิ่งที่ส่งมาด้วย ๑. คำโครงวิทยานิพนธ์ จำนวน ๑ เล่ม
๒. แบบสอบถาม จำนวน ๑ ชุด

เนื่องด้วย Mr.Lyu Jun นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการบริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์เรื่อง “Guidelines for Development of High-level Talents of Universities in Guangxi” โดยมีคณะกรรมการที่ปรึกษาวิทยานิพนธ์ ดังนี้

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| ๑. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์ | ประธานที่ปรึกษาหลัก |
| ๒. ผู้ช่วยศาสตราจารย์ ดร.กัญญาพัชญ์ ปลายัดทอง | อาจารย์ที่ปรึกษาร่วม |
| ๓. รองศาสตราจารย์ ดร.จิตติวิสุทธิ์ วิมุตติปัญญา | อาจารย์ที่ปรึกษาร่วม |

ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity) ของเครื่องมือ เพื่อให้ได้เครื่องมือที่สมบูรณ์ที่สุด ทางบัณฑิตวิทยาลัยได้พิจารณาเห็นว่าท่านเป็นผู้ทรงคุณวุฒิ มีความรู้ความสามารถสอดคล้องกับหัวข้อการทำวิทยานิพนธ์ ดังกล่าวเป็นอย่างยิ่ง ซึ่งคำแนะนำของท่านจะเกิดประโยชน์ต่อการปรับปรุงแก้ไขในการสร้างเครื่องมือสำหรับกรวิจัยของนักศึกษาให้มีคุณภาพและเหมาะสมเพื่อใช้ในการเก็บรวบรวมข้อมูลในการวิจัยต่อไป

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ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)

คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา

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เรียน Professor Lei Depeng, Guangxi University

- สิ่งที่ส่งมาด้วย ๑. คำโครงวิทยานิพนธ์ จำนวน ๑ เล่ม
๒. แบบสอบถาม จำนวน ๑ ชุด

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| ๑. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์ | ประธานที่ปรึกษาหลัก |
| ๒. ผู้ช่วยศาสตราจารย์ ดร.กัญญาพัชญ์ ปลายัดทอง | อาจารย์ที่ปรึกษาร่วม |
| ๓. รองศาสตราจารย์ ดร.จิตติวิสุทธิ์ วิมุตติปัญญา | อาจารย์ที่ปรึกษาร่วม |

ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity) ของเครื่องมือ เพื่อให้ได้เครื่องมือที่สมบูรณ์ที่สุด ทางบัณฑิตวิทยาลัยได้พิจารณาเห็นว่าท่านเป็นผู้ทรงคุณวุฒิ มีความรู้ความสามารถสอดคล้องกับหัวข้อการทำวิทยานิพนธ์ ดังกล่าวเป็นอย่างยิ่ง ซึ่งคำแนะนำของท่านจะเกิดประโยชน์ต่อการปรับปรุงแก้ไขในการสร้างเครื่องมือสำหรับกรวิจัยของนักศึกษาให้มีคุณภาพและเหมาะสมเพื่อใช้ในการเก็บรวบรวมข้อมูลในการวิจัยต่อไป

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่นักศึกษาด้วยจะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)

คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร ๐-๒๔๗๓-๗๐๐๐ ต่อ ๑๘๑๔



ที่ อว ๐๖๔๓.๑๔/บ๗ ๗๘

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ อีสราภาพ ๑๕ แขวงทิวรุจี
เขตธนบุรี กรุงเทพฯ ๑๐๖๐๐

๒๐ เมษายน ๒๕๖๖

เรื่อง เชิญเป็นผู้เชี่ยวชาญตรวจสอบความตรงเชิงเนื้อหาเครื่องมือในการทำวิทยานิพนธ์

เรียน Tang Pingqiu, Guilin University of Electronic Science and Technology

สิ่งที่ส่งมาด้วย ๑. คำโครงวิทยานิพนธ์ จำนวน ๑ เล่ม
๒. แบบสอบถาม จำนวน ๑ ชุด

เนื่องด้วย Mr.Lyu Jun นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการบริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์ เรื่อง “Guidelines for Development of High-level Talents of Universities in Guangxi” โดยมีคณะกรรมการที่ปรึกษาวิทยานิพนธ์ ดังนี้

๑. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์	ประธานที่ปรึกษาหลัก
๒. ผู้ช่วยศาสตราจารย์ ดร.กัญญาพัชญ์ ปลายัดทอง	อาจารย์ที่ปรึกษาร่วม
๓. รองศาสตราจารย์ ดร.จิตติวิสุทธิ์ วิมุตติปัญญา	อาจารย์ที่ปรึกษาร่วม

ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity) ของเครื่องมือ เพื่อให้ได้เครื่องมือที่สมบูรณ์ที่สุด ทางบัณฑิตวิทยาลัยได้พิจารณาเห็นว่าท่านเป็นผู้ทรงคุณวุฒิ มีความรู้ความสามารถสอดคล้องกับหัวข้อการทำวิทยานิพนธ์ ดังกล่าวเป็นอย่างยิ่ง ซึ่งคำแนะนำของท่านจะเกิดประโยชน์ต่อการปรับปรุงแก้ไขในการสร้างเครื่องมือสำหรับการวิจัยของนักศึกษาให้มีคุณภาพและเหมาะสมเพื่อใช้ในการเก็บรวบรวมข้อมูลในการวิจัยต่อไป

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่นักศึกษาดังกล่าวจะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คมกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัยงานประสานบัณฑิตศึกษา
โทร ๐-๒๔๗๓-๗๐๐๐ ต่อ ๑๘๑๔



ที่ อว ๐๖๔๓.๑๔/บพ ๗๙

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ อีสรภาพ ๑๕ แขวงหิรัญบุรี
เขตธนบุรี กรุงเทพฯ ๑๐๖๐๐

๒๐ เมษายน ๒๕๖๖

เรื่อง เชิญเป็นผู้เชี่ยวชาญตรวจสอบความตรงเชิงเนื้อหาเครื่องมือในการทำวิทยานิพนธ์

เรียน Lyu Yusheng, Guangxi Beibu Gulf Development Institute

- สิ่งที่ส่งมาด้วย ๑. คำโครงวิทยานิพนธ์ จำนวน ๑ เล่ม
๒. แบบสอบถาม จำนวน ๑ ชุด

เนื่องด้วย Mr.Lyu Jun นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการบริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์ เรื่อง “Guidelines for Development of High-level Talents of Universities in Guangxi” โดยมีคณะกรรมการที่ปรึกษาวิทยานิพนธ์ ดังนี้

- | | |
|--|----------------------|
| ๑. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์ | ประธานที่ปรึกษาหลัก |
| ๒. ผู้ช่วยศาสตราจารย์ ดร.ภิญญาพัชญ์ ปลาภัตทอง | อาจารย์ที่ปรึกษาร่วม |
| ๓. รองศาสตราจารย์ ดร.จิตติวิสุทธิ์ วัฒนดีปัญญา | อาจารย์ที่ปรึกษาร่วม |

ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษาจำเป็นต้องตรวจสอบความตรงเชิงเนื้อหา (Content Validity) ของเครื่องมือ เพื่อให้ได้เครื่องมือที่สมบูรณ์ที่สุด ทางบัณฑิตวิทยาลัยได้พิจารณาเห็นว่าท่านเป็นผู้ทรงคุณวุฒิ มีความรู้ความสามารถสอดคล้องกับหัวข้อการทำวิทยานิพนธ์ ดังกล่าวเป็นอย่างยิ่ง ซึ่งคำแนะนำของท่านจะเกิดประโยชน์ต่อการปรับปรุงแก้ไขในการสร้างเครื่องมือสำหรับการวิจัยของนักศึกษาให้มีคุณภาพและเหมาะสมเพื่อใช้ในการเก็บรวบรวมข้อมูลในการวิจัยต่อไป

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่นักศึกษาด้วยจะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)

คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา

โทร ๐-๒๔๗๓-๗๐๐๐ ต่อ ๑๘๑๔



ที่ อว ๐๖๔๓.๑๔/บพ ๗๑

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ อีสรภาพ ๑๕ แขวงทิวรุจิ
เขตธนบุรี กรุงเทพฯ ๑๐๖๐๐

๒๐ เมษายน ๒๕๖๖

เรื่อง ขอความอนุเคราะห์เก็บข้อมูลในการทำวิทยานิพนธ์

เรียน

เนื่องด้วย Mr.Lyu Jun นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการบริหาร การศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์ เรื่อง “Guidelines for Development of High-level Talents of Universities in Guangxi” โดยมีคณะกรรมการ ที่ปรึกษาวิทยานิพนธ์ ดังนี้

๑. รองศาสตราจารย์ ดร.นรินทร์ สุธีนรินทร์
๒. ผู้ช่วยศาสตราจารย์ ดร.ภิญญาพัชญ์ ปลากัดทอง
๓. รองศาสตราจารย์ ดร.จิตติวิสุทธิ์ วิมุตติปัญญา

ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษามีความจำเป็นต้องเก็บข้อมูล เพื่อประกอบการจัดทำวิทยานิพนธ์ ดังนั้น จึงขอความอนุเคราะห์ให้นักศึกษาได้ทำการเก็บข้อมูลเพื่อนำไปประกอบการจัดทำวิทยานิพนธ์ให้ สมบูรณ์ยิ่งขึ้น

จึงเรียนมาเพื่อโปรดพิจารณาหวังว่าคงได้รับความอนุเคราะห์จากท่านและขอขอบพระคุณมา ณ โอกาสนี้

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร ๐-๒๕๗๓-๗๐๐๐ ต่อ ๑๘๑๔

Appendix C

Research Instruments

Research questionnaire

Research Title: Guide for Development of High-Level Talents of university in Guangxi

Hello:

High-level talents play a vital role in the development of the country and society. The cultivation and growth of talent is a complex, multi-factor interactive process. We have developed this questionnaire to investigate the current status of factors influencing high-level talents in Guangxi. The information provided is for academic analysis only and is not intended for other purposes. There are no right answers or wrong answers. We would like to express our most sincere appreciation for your responses. The questionnaire is divided into two parts. The part 1 is the personal information of those who fill out the questionnaire, with a total of 5 questions. The part 2 is a survey on the current situation of influencing factors of high-level talents in Guangxi, with 96 questions in total. According to your understanding of the actual situation, please click the "v" you think is the most true, please refer to the following content:

- 5 Very good
- 4 good
- 3 Normal
- 2 Not good
- 1 Very bad

Thank you very much for your support

LyuJun

Ph. D. student, BansomdejChaopraya Rajabhat University

Research questionnaire

Part I: Basic Informatior

Instruction: Please tick (√) in the columns that represent in fact

1. Gender :

- Malea Female

2. Age :

- 18-35 35-50 over 50

3.Degree:

- Bachelor's degree Master's degree Doctor's degree

4.Marital situation

- Unmarried Married Widowed Divorced

5.The level of graduating university

- "Double First-class" and "985" Universities
 "211" universities
 Other universities in China
 Domestic scientific research institutes
 Overseas universities or research institutes

Part II: Questionnaire

This is a survey on the factors influencing the growth of high-level talents in Guangxi. Please select the survey option that best suits your actual growth and tick the box "5 Very good, 4 good, 3 Normal, 2 Not good, 1 Very bad".

No	Development of high-level Talents in of universities in Guangxi	5	4	3	2	1
Family Factors						
1	The influence of parental personality on talent formation					
2	The impact of family atmosphere during the growth stage on talent formation					
3	The influence of family structure on talent formation					
4	The influence of parents' teaching on talent formation					
5	The influence of family atmosphere on talent formation after marriage					
6	The influence of parents' occupation status on talent formation					
7	The influence of family social relationship on talent formation					
8	The influence of family pressure on talent formation after marriage					
9	The influence of family economic conditions on talent formation after marriage					
10	The influence of parental education level on talent formation					
11	Effect of spouse's education on talent formation					
12	Effects of siblings' education on talent formation					
13	The impact of family relocation on talent formation					
14	The impact of family relocation on talent formation in the growth stage					

No	Development of high-level Talents in of universities in Guangxi	5	4	3	2	1
15	The influence of family economic changes on talent formation in the growth stage					
16	The influence of parents' job changes on talent formation					
Educational factors						
1	The influence of the choice of twelve-year compulsory education institutions on the formation of talents					
2	The influence of educational resources on talent formation in twelve-year compulsory education					
3	The influence of the learning atmosphere on the formation of talents in the twelve-year compulsory education					
4	The influence of teachers' education on talent formation in twelve-year compulsory education					
5	The influence of the choice of undergraduate education institutions on the formation of talents					
6	The influence of educational resources provided in undergraduate education on talent formation					
7	The influence of learning atmosphere in undergraduate education on talent formation					
8	The influence of teachers' education on the formation of talents in undergraduate education stage					
9	The influence of teachers' attention to personal development on talent formation in undergraduate education stage					
10	The influence of the selection of scientific research institutions on the formation of talents in the stage of master's and doctoral education					
11	The influence of educational resources provided by scientific research institutions on the formation of talents in the stage of master and doctoral education					

No	Development of high-level Talents in of universities in Guangxi	5	4	3	2	1
12	The influence of scientific research atmosphere on the formation of talents in the stage of master and doctoral education					
13	The influence of tutors' teaching conditions on the formation of talents in the stage of master and doctoral education					
14	The influence of tutors' emphasis on personal academic development on the formation of talents in the stage of master and doctoral education					
15	The influence of the choice of overseas education institutions on the formation of talents					
16	The influence of educational resources provided by overseas education on talent formation					
17	The influence of the learning atmosphere of overseas education on the formation of talents					
18	The influence of teachers' education on talent formation in overseas education					
19	The influence of teachers' attention to personal development on talent formation in overseas education					
20	The influence of interdisciplinary education resources on the formation of talents					
21	The influence of local government's emphasis on educational resources on talent formation					
22	The influence of local government's emphasis on continuing education on talent formation					
Social Factor						

No	Development of high-level Talents in of universities in Guangxi	5	4	3	2	1
1	The influence of the preferential strength of talent policy in ethnic minority areas on talent formation					
2	The influence of the effectiveness of talent policy in ethnic minority areas on the formation of talents					
3	The impact of talent policy in ethnic minority areas on the innovation vitality of talents and the formation of talents					
4	The influence of the situation of talent incentive plan in ethnic minority areas on talent formation					
5	The influence of the current situation of overall resource rationing on talent formation in ethnic minority areas					
6	The influence of social resource rationing on talent formation in the growth stage					
7	The influence of the resource rationing of research institutions on the formation of talents in the scientific research stage					
8	The influence of resource rationing on talent formation in higher education stage					
9	The influence of regional overall economic development level on talent formation					
10	The influence of regional education quality on talent formation under the situation of regional economic development					
11	The influence of regional economic development on the career planning of local students					

No	Development of high-level Talents in of universities in Guangxi	5	4	3	2	1
12	The influence of regional economic development status on research funds, equipment and other conditions					
13	The influence of social attention on the formation of talents in scientific research institutions					
14	The importance of team support to the development of talents					
15	The importance of team cooperation to the improvement of individual comprehensive ability					
16	The importance of teamwork in stimulating individual potential					
17	The impact of team quality on individual development					
18	The impact of first academic output on success					
19	The impact of a superior research environment on the length of academic life					
20	The influence of good social atmosphere on the length of academic life					
21	The influence of perfect competition system on the length of academic life					
22	The impact of the research environment in the academic life cycle on the formation of talents					
23	The influence of good social atmosphere in the academic life cycle on the formation of talents					
24	The influence of perfect competition system in academic life cycle on the formation of talents					

No	Development of high-level Talents in of universities in Guangxi	5	4	3	2	1
25	The impact of the number of citations of papers published in the academic life cycle on talent formation					
26	The impact of academic honor on talent formation					
27	The influence of research field direction on talent formation					
28	The influence of the priority choice of disciplines and colleges on the formation of talents in the selection of research fields					
29	The influence of international academic communication on talent formation					
30	The research field is influenced by the degree of attention paid by academia on the formation of talents					
31	The influence of frontier degree of research field on talent formation					
Personal Factors						
1	The impact of risk-taking qualities on talent formation					
2	The influence of confidence quality on talent formation					
3	The influence of cooperative spirit on talent formation					
4	The influence of innovative spirit on talent formation					
6	The influence of being positive and enthusiastic on talent formation					
7	The influence of perseverance and rising to the challenge on talent formation					
8	The impact of clear goals on talent formation					
9	The influence of good study habits on talent formation					

No	Development of high-level Talents in of universities in Guangxi	5	4	3	2	1
10	The influence of good research habits on the formation of talents					
11	The influence of unique learning methods on the formation of talents					
12	The influence of unique research ideas on the formation of talents					
13	The influence of academic performance on the formation of talents					
14	The influence of talent in the field of study on talent formation					
15	The impact of aptitude in basic disciplines on talent formation					
16	The influence of learning ability on talent formation					
17	The influence of working ability on talent formation					
18	The influence of interpersonal skills on talent formation					
19	The influence of good health status on talent formation					
20	The influence of regular work and rest on talent formation					
21	The influence of positive mental state on talent formation					
22	The influence of a firm stance on talent formation					

No	Development of high-level Talents in of universities in Guangxi	5	4	3	2	1
23	The influence of academic awards obtained in higher education on talent formation					
24	The influence of other kinds of awards obtained in higher education on the formation of talents					
25	The influence of academic honors on talent formation in the stage of scientific research					
26	The influence of other honors in the research stage on the formation of talents					
27	The influence of academic honors obtained in the work stage on talent formation					

**Outline of Interviews with 10 BCDE Talents Recognized by Guangxi Zhuang
Autonomous Region Government**

Serial number	Interview Questions
1	Can you talk about what you have achieved so far?
2	Has your education helped you to achieve so much?
3	Which stage of your educational experience do you think has been most helpful to you?
4	Does your family support you a lot? What do you think is the most crucial support?
5	In addition to your family's, what support do you think the state or units have had a big impact on you?
6	What do you personally focus on and pursue in your academic research?
7	In your academic research, how do you grasp the relationship between academia and the domain of power?
8	What aspects of educational support do you think have a greater impact on talent formation in ethnic areas?
9	What do you think are your personal qualities that have contributed to your achievements?
10	What other factors do you think have helped you to achieve what you have achieved?

<p>emotional communication and exchange, provide support and care in cultural and spiritual life, and create a more harmonious family atmosphere.</p>									
Social factors									
<p>1.Talent policy: Introduce incentivizing talent policy to create a favorable environment for talent development in innovation and entrepreneurship, education, medical care, housing and other fields, set goals and plan paths for talent growth, and ensure talent development.</p>									
<p>2.Resource allocation: Optimizing the allocation of talent training resources and creating a reasonable and fair environment for resource allocation are extremely beneficial to the growth of talents. Reasonable distribution of education, teachers, funds, school environment and other social resources can promote the full growth of talents.</p>									
<p>3.Research conditions: Fully meet the research conditions of high-level talents, and give priority to the allocation of research teams, funds, and laboratories according to research requirements.</p>									
<p>4.Team support: Introduce outstanding talents to join the scientific research team by increasing the funding and reward investment of scientific research achievements, improve the management system and evaluation of scientific research team, and support scientific</p>									

4.Health condition: Advocating high-level talents to develop healthy habits, exercise daily, eat on time, eat reasonably, and get enough sleep will help to develop a healthy body.									
5.Mental state: Advocating the establishment of a positive outlook on life and values, actively interacting with people, cultivating reasonable interests and hobbies, actively exercising and releasing stress to ensure the healthy growth of talents.									
6.Awards: Give full encouragement to high-level talents, and give them not only spiritual rewards, but also material incentives, giving them appropriate dignity and social status, so as to enhance and motivate high-level talents' enthusiasm and initiative in academic study.									
Educational factors									
1.Compulsory education: Should advocate the all-round development of moral education, intellectual education, physical education, aesthetic education and labor education to lay a solid foundation for the growth of talents.									
2.Undergraduate education: Advocate professional knowledge education and practice ability cultivation. Should pay attention to the initiative of mining talent, encourage active participation in practice activities, improve the quality of talent training.									
3.Master and doctoral education: Should promote knowledge education in frontier areas,									

cultivate talents' interest in scientific research, stimulate their enthusiasm for scientific research and creativity, and guide them to actively explore the unknown world.										
4.Overseas study education: Advocate experiencing different cultures and research thinking in different countries, strengthen academic and cultural exchanges, and learn advanced foreign science and technology and excellent management experience.										
5.Continuing Education: Advocates the lifelong and learning concept of continuing education, combines work with re-education, and encourages talents to continuously improve their master's degree, work efficiency and knowledge reserve.										

Appendix D

The Results of the Quality Analysis of Research Instruments

The Consistency of research Tools (IOC)

Research Title: Guideline for the Development of High-Level Talents at university
in Guangxi

NO	Development of High-Level Talents in university of Guangxi	For experts			IOC	Proposal
		1	0	1		
Family factors						
1	The influence of parental personality on talent formation	1	1	1	1.00	valid
2	The impact of family atmosphere during the growth stage on talent formation	1	1	1	1.00	valid
3	The influence of family structure on talent formation	1	1	1	1.00	valid
4	The influence of parents' teaching on talent formation	1	1	1	1.00	valid
5	The influence of family atmosphere on talent formation after marriage	1	1	1	1.00	valid
6	The influence of parents' occupation status on talent formation	1	1	1	1.00	valid
7	The influence of family social relationship on talent formation	1	1	1	1.00	valid
8	The influence of family pressure on talent formation after marriage	1	1	1	1.00	valid
9	The influence of family economic conditions on talent formation after marriage	1	1	1	1.00	valid
10	The influence of parental education level on talent formation	1	1	1	1.00	valid
11	Effect of spouse's education on talent formation	1	1	1	1.00	valid
12	Effects of siblings' education on talent formation	1	1	1	1.00	valid
13	The impact of family relocation on talent formation	1	1	1	1.00	valid

NO	Development of High-Level Talents in university of Guangxi	For experts			IOC	Proposal
		1	0	1		
14	The impact of family relocation on talent formation in the growth stage	1	1	1	1.00	valid
15	The influence of family economic changes on talent formation in the growth stage	1	1	1	1.00	valid
16	The influence of parents' job changes on talent formation	1	1	1	1.00	valid
Educational factors						
1	The influence of the choice of twelve-year compulsory education institutions on the formation of talents	1	1	1	1.00	valid
2	The influence of educational resources on talent formation in twelve-year compulsory education	1	1	1	1.00	valid
3	The influence of the learning atmosphere on the formation of talents in the twelve-year compulsory education	1	1	1	1.00	valid
4	The influence of teachers' education on talent formation in twelve-year compulsory education	1	1	1	1.00	valid
5	The influence of the choice of undergraduate education institutions on the formation of talents	1	1	1	1.00	valid
6	The influence of educational resources provided in undergraduate education on talent formation	1	1	1	1.00	valid
7	The influence of learning atmosphere in undergraduate education on talent formation	1	1	1	1.00	valid
8	The influence of teachers' education on the formation of talents in undergraduate education stage	1	1	1	1.00	valid
9	The influence of teachers' attention to personal development on talent formation in undergraduate education stage	1	1	1	1.00	valid
10	The influence of the selection of scientific research institutions on the formation of talents in the stage of	1	1	1	1.00	valid

NO	Development of High-Level Talents in university of Guangxi	For experts			IOC	Proposal
		1	0	1		
	master's and doctoral education					
11	The influence of educational resources provided by scientific research institutions on the formation of talents in the stage of master and doctoral education	1	1	1	1.00	valid
12	The influence of scientific research atmosphere on the formation of talents in the stage of master and doctoral education	1	1	1	1.00	valid
13	The influence of tutors' teaching conditions on the formation of talents in the stage of master and doctoral education	1	1	1	1.00	valid
14	The influence of tutors' emphasis on personal academic development on the formation of talents in the stage of master and doctoral education	1	1	1	1.00	valid
15	The influence of the choice of overseas education institutions on the formation of talents	1	1	1	1.00	valid
16	The influence of educational resources provided by overseas education on talent formation	1	1	1	1.00	valid
17	The influence of the learning atmosphere of overseas education on the formation of talents	1	1	1	1.00	valid
18	The influence of teachers' education on talent formation in overseas education	1	1	1	1.00	valid
19	The influence of teachers' attention to personal development on talent formation in overseas education	1	1	1	1.00	valid
20	The influence of interdisciplinary education resources on the formation of talents	1	1	1	1.00	valid
21	The influence of local government's emphasis on educational resources on talent formation	1	1	1	1.00	valid
22	The influence of local government's emphasis on	1	1	1	1.00	valid

NO	Development of High-Level Talents in university of Guangxi	For experts			IOC	Proposal
		1	0	1		
	continuing education on talent formation					
Social factors						
1	The influence of the preferential strength of talent policy in ethnic minority areas on talent formation	1	1	1	1.00	valid
2	The influence of the effectiveness of talent policy in ethnic minority areas on the formation of talents	1	1	1	1.00	valid
3	The impact of talent policy in ethnic minority areas on the innovation vitality of talents and the formation of talents	1	1	1	1.00	valid
4	The influence of the situation of talent incentive plan in ethnic minority areas on talent formation	1	1	1	1.00	valid
5	The influence of the current situation of overall resource rationing on talent formation in ethnic minority areas	1	1	1	1.00	valid
6	The influence of social resource rationing on talent formation in the growth stage	1	1	1	1.00	valid
7	The influence of the resource rationing of research institutions on the formation of talents in the scientific research stage	1	1	1	1.00	valid
8	The influence of resource rationing on talent formation in higher education stage	1	1	1	1.00	valid
9	The influence of regional overall economic development level on talent formation	1	1	1	1.00	valid
10	The influence of regional education quality on talent formation under the situation of regional economic development	1	1	1	1.00	valid
11	The influence of regional economic development on the career planning of local students	1	1	1	1.00	valid
12	The influence of regional economic development status on research funds, equipment and other conditions	1	1	1	1.00	valid

NO	Development of High-Level Talents in university of Guangxi	For experts			IOC	Proposal
		1	0	1		
13	The influence of social attention on the formation of talents in scientific research institutions	1	1	1	1.00	valid
14	The importance of team support to the development of talents	1	1	1	1.00	valid
15	The importance of team cooperation to the improvement of individual comprehensive ability	1	1	1	1.00	valid
16	The importance of teamwork in stimulating individual potential	1	1	1	1.00	valid
17	The impact of team quality on individual development	1	1	1	1.00	valid
18	The impact of first academic output on success	1	1	1	1.00	valid
19	The impact of a superior research environment on the length of academic life	1	1	1	1.00	valid
20	The influence of good social atmosphere on the length of academic life	1	1	1	1.00	valid
21	The influence of perfect competition system on the length of academic life	1	1	1	1.00	valid
22	The impact of the research environment in the academic life cycle on the formation of talents	1	1	1	1.00	valid
23	The influence of good social atmosphere in the academic life cycle on the formation of talents	1	1	1	1.00	valid
24	The influence of perfect competition system in academic life cycle on the formation of talents	1	1	1	1.00	valid
25	The impact of the number of citations of papers published in the academic life cycle on talent formation	1	1	1	1.00	valid
26	The impact of academic honor on talent formation	1	1	1	1.00	valid
27	The influence of research field direction on talent formation	1	1	1	1.00	valid

NO	Development of High-Level Talents in university of Guangxi	For experts			IOC	Proposal
		1	0	1		
28	The influence of the priority choice of disciplines and colleges on the formation of talents in the selection of research fields	1	1	1	1.00	valid
29	The influence of international academic communication on talent formation	1	1	1	1.00	valid
30	The research field is influenced by the degree of attention paid by academia on the formation of talents	1	1	1	1.00	valid
31	The influence of frontier degree of research field on talent formation	1	1	1	1.00	valid
Personal Factors						
1	The impact of risk-taking qualities on talent formation	1	1	1	1.00	valid
2	The influence of confidence quality on talent formation	1	1	1	1.00	valid
3	The influence of cooperative spirit on talent formation	1	1	1	1.00	valid
4	The influence of innovative spirit on talent formation	1	1	1	1.00	valid
5	Willing to accept the influence of new things on talent formation	1	1	1	1.00	valid
6	The influence of being positive and enthusiastic on talent formation	1	1	1	1.00	valid
7	The influence of perseverance and rising to the challenge on talent formation	1	1	1	1.00	valid
8	The impact of clear goals on talent formation	1	1	1	1.00	valid
9	The influence of good study habits on talent formation	1	1	1	1.00	valid
10	The influence of good research habits on the formation of talents	1	1	1	1.00	valid

NO	Development of High-Level Talents in university of Guangxi	For experts			IOC	Proposal
		1	0	1		
11	The influence of unique learning methods on the formation of talents	1	1	1	1.00	valid
12	The influence of unique research ideas on the formation of talents	1	1	1	1.00	valid
13	The influence of academic performance on the formation of talents	1	1	1	1.00	valid
14	The influence of talent in the field of study on talent formation	1	1	1	1.00	valid
15	The impact of aptitude in basic disciplines on talent formation	1	1	1	1.00	valid
16	The influence of learning ability on talent formation	1	1	1	1.00	valid
17	The influence of working ability on talent formation	1	1	1	1.00	valid
18	The influence of interpersonal skills on talent formation	1	1	1	1.00	valid
19	The influence of good health status on talent formation	1	1	1	1.00	valid
20	The influence of regular work and rest on talent formation	1	1	1	1.00	valid
21	The influence of positive mental state on talent formation	1	1	1	1.00	valid
22	The influence of a firm stance on talent formation	1	1	1	1.00	valid
23	The influence of academic awards obtained in higher education on talent formation	1	1	1	1.00	valid
24	The influence of other kinds of awards obtained in higher education on the formation of talents	1	1	1	1.00	valid
25	The influence of academic honors on talent formation in the stage of scientific research	1	1	1	1.00	valid
26	The influence of other honors in the research stage on the formation of talents	1	1	1	1.00	valid

NO	Development of High-Level Talents in university of Guangxi	For experts			IOC	Proposal
		1	0	1		
27	The influence of academic honors obtained in the work stage on talent formation	1	1	1	1.00	valid

Appendix E

Certificate of English



มหาวิทยาลัยราชภัฏจันทรเกษม

Bansomdejchaopraya Rajabhat University

This is to certify that

MR. LYU JUN

Has participated in BSRU-TEST of English Proficiency (BSRU – TEP) Training Course and
Achieved BSRU-TEST of English Proficiency (BSRU – TEP) level

C 1

Given on 16th February 2020

(Assistant Professor Dr. Phadet Kakham)
Vice President

Appendix F

The Document for Accept Research / Full Paper



Acceptance Letter

Dear Author(s): **Lyu Jun , Niran Sutheeniran, Pinyapat Pargudtong, Jittawisut Wimuttipanya, Patchara Dechhome**

Paper ID	ECB_35
Paper Title	Guidelines for Development of High-level Talents of Universities in Guangxi

This is to enlighten you that above manuscript reviewed and appraised by the review committee members of **BioLEAGUES** and it is accepted for the purpose of publication in the “**European Chemical Bulletin**”.

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