STRATEGIES FOR IMPROVING QUALITY MANAGEMENT OF TALENT CULTIVATION THROUGH ARTIFICIAL INTELLIGENCE IN PRIVATE UNIVERSITIES IN GUANGXI

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Thesis Title Strategies for Improving Quality Management of Talent Cultivation Through Artificial Intelligence in Private Universities in Guangxi

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ABSTRACT

The objectives of this research were: 1) To study the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi; 2) To study strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi; 3) To evaluate the strategies of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi. The sample were 621 teachers and full-time students from 3 private universities, The research tools include: 1) questionnaire survey, 2) structured interviews, 3) feasible strategy evaluation. Research data analysis includes percentage, average, standard deviation and content analysis.

The research results show that: The level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi in overall is at medium level. For improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi, The strategies contain four aspects: 1) quality objective strategies for talent cultivation, 2) quality assurance strategies for talent cultivation,3) quality improvement strategies for talent cultivation. The feasibility evaluation results of the strategies are at high level.

Keywords: Artificial intelligence (AI), Quality management of talent cultivation, Private universities.

ชื่อเรื่อง **กลยุทธ์การพัฒนาการบริหารจัดการคุณภาพเพื่อเสริมสร้างความสามารถพิเศษโดยผ่านปัญญาประดิษฐ์ในมหาวิทยาลัยเอกชนในมณฑลกวางสี**
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บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อ 1) ศึกษาระดับการบริหารจัดการเชิงคุณภาพเพื่อเสริมสร้างความสามารถพิเศษโดยผ่านปัญญาประดิษฐ์ในมหาวิทยาลัยเอกชนในกวางสี 2) ศึกษา กลยุทธ์การพัฒนาการบริหารจัดการเชิงคุณภาพเพื่อเสริมสร้างความสามารถพิเศษโดยผ่านปัญญาประดิษฐ์ในมหาวิทยาลัยเอกชนในกวางสี 3) ประเมินกลยุทธ์การพัฒนาการบริหารจัดการเชิงคุณภาพการเพื่อเสริมสร้างความสามารถพิเศษโดยผ่านปัญญาประดิษฐ์ในมหาวิทยาลัยเอกชนใน กวางสี กลุ่มตัวอย่างที่ใช้ในการวิจัย ได้แก่ ครูและนักศึกษาภาคปกติของมหาวิทยาลัยเอกชนในกวางสี 3 แห่ง จำนวน 621 คน เครื่องมือที่ใช้ในการวิจัย ได้แก่ แบบสอบถาม แบบสัมภาษณ์ และแบบประเมินกลยุทธ์ วิเคราะห์ข้อมูลโดยใช้ ค่าร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และการวิเคราะห์เนื้อหา

ผลการวิจัยพบว่า การบริหารจัดการเชิงคุณภาพเพื่อเสริมสร้างความสามารถพิเศษโดยผ่านปัญญาประดิษฐ์ในมหาวิทยาลัยเอกชนในกวางสีโดยรวมอยู่ในระดับปานกลาง กลยุทธ์การการบริหารจัดการเชิงคุณภาพเพื่อเสริมสร้างความสามารถพิเศษโดยผ่านปัญญาประดิษฐ์ในมหาวิทยาลัยเอกชนในกวางสี มี 4 ด้าน ประกอบด้วย 1) กลยุทธ์การกำหนดเป้าหมายเชิงคุณภาพเพื่อเสริมสร้างความสามารถพิเศษ 2) กลยุทธ์การประกันคุณภาพเพื่อเสริมสร้างความสามารถพิเศษ 3) กลยุทธ์การปรับปรุงเชิงคุณภาพเพื่อเสริมสร้างความสามารถพิเศษ และผลการประเมินความเป็นไปได้ของกลยุทธ์อยู่ในระดับมาก

คำสำคัญ: การบริหารจัดการเชิงคุณภาพ การเสริมสร้างความสามารถพิเศษ มหาวิทยาลัยเอกชน

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Chen Ya

Contents

Contents (Continued)

List of tables

Table **page**

List of Figures

Figure **page**

Chapter 1

Introduction

Rationale

Private university refers to a newly emerging education method that has been fully implemented after the reform and opening up in China. It has developed to a certain scale and has become an indispensable and important part of the higher education system in China. Not only has it improved the imbalance between supply and demand in higher education, but it has also increased educational opportunities, improved the allocation of educational resources, and boosted the reform and upgrading of China's higher education structure (Qi Xiaolin, 2021). Talent quality is the embodiment of education quality, and it is also the lifeline of the survival and development of major universities. As an important component of China's higher education, private universities must also take improving the quality of talent cultivation as the first priority, otherwise it will not only hinder the sustainable development of private universities in China, but also affect the overall quality of China's higher education. In December 2016, the State Council of China issued the "Several Opinions on Encouraging Social Forces to Start Education and Promoting the Healthy Development of Private Education", proposing the principle of "encouraging reform and linking up the top and bottom". This shows that the state attaches great importance to the development of private higher education. The vibrant development of private universities has made positive contributions to promoting economic and social development. Compared with public universities, private universities generally have several weaknesses such as poor student resources, weak faculty, insufficient hardware facilities, and weak autonomous learning ability.

As of May 31, 2022, China has 1270 universities, including 412 private universities (including independent universities), accounting for 32.4% of the national

universities. In 2022, there will be an increase of 595 universities nationwide compared to 1980, including 412 private universities, accounting for 62% of the newly added universities. The development speed of private universities has greatly exceeded that of public undergraduate universities during the same period. At the same time, it is worth noting that in 2022, there will be a significant decrease of 24 private universities compared to the same period in 2020. Among them, it is worth exploring whether the suspension of education due to substandard training quality is caused. On November 29, 2000, the "China Youth Daily" published Ding Zuyi's article "Developing Private Higher Education to Promote the Western Development", proposing that priority should be given to the development of knowledge resources in the Western Development. The leapfrog approach to talent development is to vigorously develop private higher education, and China's private universities should transfer to the "Silicon Valley of Private Universities" (Ding Zuyi, 2000). As of May 2022, there are 38 universities in Guangxi, including 12 private universities. This shows the importance of private universities for the development of higher education in Guangxi. Due to the weak economic foundation and the current shortage of high-level technical talents in Guangxi, the issue of poor awareness and emphasis on education in universities is becoming increasingly prominent. Education is the cornerstone of development, and improving the quality management of talent cultivation in Guangxi's higher education is related to the development of Guangxi and even the entire country.

With the rapid development of social economy, the fourth industrial revolution, represented by artificial intelligence, has ushered in the era of Industry 4.0. The progress of high and new technology has also raised higher requirements for the quality management of talent cultivation. The quality of education depends on the quality of talent cultivation, and improving the quality of talent has become the core competitiveness of the survival and development of universities. Under the new

opportunities and challenges, how to strengthen the quality management of talent cultivation has become the core issue faced by private universities in China. In November 2017, the Higher Education Teaching Evaluation Center of the Ministry of Education of China stated in the "Report on the Quality of Undergraduate Education in Chinese Universities" that relying on personal awareness and traditional experience can lead to simple quality assurance methods, rough methods, low-level means, and a lack of scientific basis for decision-making. It was also mentioned that the overall situation of education and teaching in Chinese universities is not objective. With the wide application of modern information technology such as the Internet, cloud computing, artificial intelligence, the progressiveness, scientific and systematic quality assurance system urgently needs to be deeply integrated with cutting-edge information technology.

This study takes private universities in Guangxi, China as the research object. Guangxi is located in the western region of China, where the economy is relatively backward and the educational foundation is poor. The overall quality of its higher education is relatively backward. In the process of graduate student enrollment in China, the Ministry of Education will formulate and publish the basic requirements for the preliminary examination results of graduate students in accordance with the first and second districts. Generally speaking, the first district is a strong education province, and the second district is a weak education province. The score line of the first district is higher than the score of the second district, and the total score is about 10 points higher on average. Guangxi is a province within the second district. Due to the weak economic foundation in Guangxi and the current shortage of high-level technical talents, the issue of poor awareness and emphasis on higher education is becoming increasingly prominent. Private universities are an important part of Guangxi's higher education system, and their quality directly affects the development of Guangxi's higher education and even the entire Guangxi economy.

For various reasons, the failure of managers of private universities in Guangxi to find high-quality ways to improve the quality of talent cultivation is an important reason why education in Guangxi has been at a relatively low level. To solve this problem, private colleges and universities in Guangxi should proceed from their own school situation, leverage from all parties, accurately attack, and increase the comprehensive use of artificial intelligence technology in schools. Through the rational use of artificial intelligence technology in daily work and learning, we can improve school work efficiency and learning atmosphere, transform passive learning into active learning in private universities, and fundamentally improve the quality of school education. It can be seen that under the current realistic background, artificial intelligence technology is of great significance to the quality management and talent cultivation management of private universities in Guangxi.

How to effectively improve the quality management of talent cultivation has been a long-standing research topic in the education sector. From previous studies, we can foresee the progressiveness of this topic. For example, Wang Huan (2017) pointed out that the use of advanced information technology and teaching software makes the teaching content and methods more vivid, so that students can get rid of the original "dead reading, dead reading" learning mode, greatly improve learning interest and efficiency, and substantially stimulate their personality and potential. Liu Dan (2021) mentioned that university teachers can accurately understand the learning quality of students by using big data intelligent analysis technology, so as to timely and effectively adjust teaching methods and improve teaching quality. Zheng Qinghua (2019) showed that the application of artificial intelligence technology can conduct in-depth and systematic analysis of students' learning styles, teachers' teaching methods, and educational management effectiveness, and can accurately evaluate teaching quality, thereby forming a closed-loop management of "teaching" and "learning", making personalized education based on materials possible. These

scholars have all highly affirmed the impact of artificial intelligence on the development of higher education, but there are still some problems in practical application: 1) The research objects are more first-class undergraduate universities with good foundation (such as Xi'an Jiaotong University, which has established a real-time monitoring big data platform for teaching quality), while the relevant research on private universities with poor teacher and student resources that need to accelerate the improvement of talent cultivation quality is relatively rare. 2) There is a significant gap between what AI technology can do and how it can be implemented in a real educational environment (Bates et al., 2020; Kabudi et al., 2021). Guangxi is located in an economically underdeveloped region of China, and the quality management of talent cultivation is directly related to the development of the entire Guangxi and even China. How to utilize the latest science and technology to achieve "curve overtaking" of educational level is a question worthy of consideration for the entire society.

Research Questions

1. What’s the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi?

2. What are the strategies for improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi?

3. Are strategies for improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi feasible?

Research Objectives

1. To study the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

2. To study strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

3. To evaluate the strategies of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Scope of the Research

Population

Population are 193122 full-time university students and 7925 full-time teachers from 11 private universities in Guangxi. These people are all participants who are mainly involved in improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Sample Group

Sample groups are 621 full-time university students and 12 full-time teachers from 3 private universities in Guangxi, which are selected by using the method of random sampling in accordance with Taro Yamame (96%) sampling tables. (These 3 universities are Nanning University, Guangxi University of Foreign Languages, and Guilin University).

Research Variables

Based on total quality management theory and constructivist theory, strategies of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi have 8 main variables, including:

1. AI for education environment
2. AI for teaching and learning process support

3. AI for education evaluation
4. AI for management and service.
5. quality objectives of talent cultivation
6. quality assurance of talent cultivation
7. quality evaluation of talent cultivation
8. quality improvement of talent cultivation

Research Advantages and Innovation

1. At present, it is relatively short time for private universities to run school in our country, and there is less research on quality management strategy of talent cultivation of private universities. Artificial intelligence is also an emerging high-tech field, and there are relatively few researches on the integration of artificial intelligence and the field of education. In addition, the research on the quality management mechanism of personnel training in private universities is not comprehensive enough, and the lack of a comprehensive analysis of the comprehensive quality management mechanism of students and teachers in private universities from the local actual situation. The quality of talents in Guangxi private universities is not high, and the implementation effect of talent cultivation quality management strategy is not strong, which is the key reason for the low quality of talent cultivation in Guangxi private universities. In view of these problems, this paper studies the quality management strategy of talent cultivation in Guangxi private universities, which provides a theoretical basis for private universities to improve the development of talent cultivation quality management, and further enrich the theoretical system of strategies for improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

2. This study focuses on the investigation and analysis of the artificial intelligence in Guangxi private universities to improve the quality management of

talent training, analyzes the problems and differences in the quality management mechanism of talent cultivation in Guangxi private universities, and provides guidance for the reform of the quality management mechanism of talent cultivation in Guangxi private universities from 8 variables, which has strong practical significance.

3. This study optimizes the strategies of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi and provides references for relative universities on a national scale. It has strong practical significance.

Definition of Terms

Artificial intelligence (AI) for education environment refers to be no longer just a pure physical space, but a physical space that is transformed by technology, interwoven with reality and seamless flow. After integrating ubiquitous intelligent terminals and ubiquitous network technology into the educational environment, it provides a new ecological mechanism for education and teaching, establishes a new human-computer relationship between learners and technology, and achieves intelligent integration of learners and technology optimization. Establish a seamless connection between people, objects, and machines to always meet the various possibilities of learning (Yu Shengquan, 2020). Emphasize that anyone can use any computing device to obtain the required learning resources and enjoy ubiquitous learning services at any time and place. Typical applications in current educational environments include campus security monitoring and early warning, intelligent classrooms, and intelligent libraries (Lu Yu, Ma Anyao, 2021). Smart education environment is a high-end form of ordinary traditional education environment and an inevitable result of the development of educational technology.

Artificial intelligence (AI) for teaching and learning process support refers to use artificial intelligence technology to support learners' learning processes and

educators' teaching processes. (Lu Yu, Ma Anyao, 2021) mentioned that learning is a process in which students acquire knowledge and skills through the help and support of teachers or peers. Students usually need scientific and timely support in their learning to efficiently complete this process. Similarly, teachers also need to obtain corresponding teaching support through interaction with students, peers, and teaching information. Based on various key technologies of artificial intelligence, typical applications of intelligent teaching process support systems at this stage include intelligent recommendation of teaching resources, use of intelligent subject tools, and intelligent diagnosis of learning disabilities.

Artificial intelligence (AI) for education evaluation refers to the process of scientifically determining various educational activities, processes, and outcomes implemented under the guidance of certain educational values, based on established educational goals, and through the use of advanced artificial intelligence technology. The application of artificial intelligence technology in the field of education has made educational researchers no longer satisfied with using questionnaires to measure students' knowledge acquisition at fixed points and statically. Instead, they use various types of computer equipment and artificial intelligence technology to comprehensively evaluate students' high-level cognition, metacognition, psychology, and physical health from multiple perspectives. Currently, intelligent education evaluation has typical applications in intelligent classroom evaluation, oral automatic evaluation, mental health monitoring, and physical health evaluation.

Artificial intelligence (AI) for management and service in education refers to the organization and coordination of internal resources of the education system by managers, making full use of intelligent key technologies and information means to achieve efficient and high-level educational management goals and public services. Dynamic education and quality detection based on data analysis and mining

is an important means to achieve process monitoring and significant improvement of teaching quality, and is also a key technical means required to achieve intelligent management and service in education. Utilizing educational information systems, through technologies such as big data analysis, artificial intelligence, and cloud computing, to achieve more efficient allocation and management of people, finance, and materials, and to achieve scientific, intelligent, and efficient management, decision-making, and services (Yu Shengquan, 2020). Currently, typical applications of educational intelligent management and services include assisting educational decision-making, providing customized educational services, and so on.

Quality objective of talent cultivation refers to the intersection and integration of the two concepts of talent cultivation objectives in the field of education and quality objectives in the field of enterprise management. Quality objectives refer to the commitment and pursuit of an organization in terms of quality to meet requirements and continuously improve the effectiveness of the quality management system. Quality objectives are generally formulated based on the quality policy of the organization, usually by specifying quality objectives for the relevant functions and levels of the organization. The main task of higher education is to cultivate talents, and the quality goal of talent cultivation is to establish a commitment and pursuit of what kind of talents to cultivate based on the orientation of colleges and universities, in order to meet social and personal development needs. In general, under the core education concept of adhering to the comprehensive development of morality, intelligence, physique, beauty, and labor, private undergraduate colleges and universities tend to develop in an application-oriented manner, focusing on cultivating students' practical and innovative abilities.

Quality assurance of talent cultivation refers to the intersection and integration of the two concepts of talent cultivation process and quality assurance in the field of enterprise management in the constituent elements of talent cultivation.

In the field of enterprise management, quality assurance is a part of quality management, which refers to all planned and systematic activities implemented in the quality management system and verified as needed to ensure that products or services can meet quality requirements. Quality assurance is based on ensuring quality, further extending to the basic purpose of providing "trust". Quality assurance of talent cultivation refers to the implementation of relevant talent cultivation plans and a series of teaching activities by universities to ensure the quality of students after education and training in accordance with the needs of the country and society for talent, in order to achieve the established talent cultivation goals. It specifically includes the quality assurance of professional construction, the quality assurance of teaching staff, and the quality assurance of practical teaching.

Quality evaluation of talent cultivation refers to intersection and fusion of the two concepts of talent cultivation evaluation in the constituent elements of talent cultivation and quality evaluation in the field of enterprise management. From the perspective of enterprise management, quality evaluation is the foundation for improving product quality. Establishing a sound quality evaluation system can predict the development trend of the macro quality level and improve the market competitiveness of enterprises. From the perspective of education management, internal process monitoring and external quality feedback are important components of talent cultivation quality evaluation. The evaluation of internal talent cultivation quality refers to the evaluation made by relevant personnel of universities on "cultivation plans, curriculum development, teaching implementation, teaching effectiveness", etc; The evaluation of external talent cultivation quality refers to the evaluation of the quality construction and quality management of universities and colleges after enrollment expansion authorized by the government to ensure the realization of the high-quality enrollment expansion goal (Wang Jianzhong, 2021) In terms of the specific method of talent cultivation quality evaluation, the Hong Kong

Education and Planning Commission once proposed that the quality of talent cultivation is a reasonable comparison between the original level of students at the time of enrollment and the improvement rate of their performance after enrollment, The magnitude of value added indicates the effect of talent cultivation quality. In general, the evaluation of talent cultivation quality refers to the comprehensive assessment and comprehensive evaluation of talents cultivated by colleges and universities based on their talent cultivation goals and specifications and a certain evaluation index system.

Quality improvement of talent cultivation refers to the cross integration of talent cultivation in the field of education and quality improvement in the field of enterprise management. Modern management divides the object of quality improvement into two aspects: product quality and work quality, and believes that the ultimate effect is to obtain a much higher product (or service) than the original goal. The main task of talent cultivation in universities is to cultivate high-level specialized talents that meet the needs of society and the country. To improve the quality of talent cultivation, specifically, colleges and universities, in order to meet the needs of social development, use certain quality tools and methods (teaching systems, teaching models, management methods, etc.) to cultivate talents for the target audience (students in the narrow sense, teachers in the broad sense, etc.), to improve the quality of school teaching and students' learning, in order to achieve higher quality objectives for talent cultivation. In general, through measures and methods to improve the quality of talent cultivation, the existing quality level is improved on the basis of control, so as to bring the quality of talent to a new level and height.

Quality Management of Talent Cultivation refers to a combination of talent cultivation concepts in the education field and quality management concepts in the enterprise field. It is a measure and assessment of various factors such as the degree

of achievement of training objectives, the reasonableness of the training process, the suitability of the training system, the compatibility of students' needs and training approaches, and the realization of students' own qualities and skills in education and teaching. As early as 2012, the report of the 18th National Congress of the Communist Party of China emphasized that universities must take improving the quality of talent cultivation as the core of education and promote the connotative development of higher education. In summary, this article believes that the quality management of talent cultivation tends to be a dynamic management process related to talent cultivation. Specifically, the talent cultivation quality management of "artificial intelligence+" for private universities is defined as the "artificial intelligence+" educational management paradigm conceived to achieve the cultivation goals of applied talents for private universities under the conditions of intelligent information technology support. Its constituent elements include four major elements: quality objectives of talent cultivation, quality assurance of talent cultivation, quality evaluation of talent cultivation, and quality improvement of talent cultivation.

Quality Management of Talent Cultivation in private universities refers to the organizational style and operation mode of talent cultivation activities adopted to achieve the talent cultivation goals of private higher education under the guidance of certain educational concepts. Deng Qinglin (2011) explained the connotation of talent cultivation quality management in private universities from five major factors, namely, education philosophy, training objectives, majors and curriculum settings, training approaches, and teaching staff: 1) Talent cultivation in private universities is based on the concept of private higher education, emphasizing the close integration of schools with society and enterprises, and determining the direction of talent development based on market requirements for talent specifications. 2) Compared with the training objectives of general education, the talent training objectives of

private higher education go deeper, namely, to cultivate skilled and applied talents capable of practical work. 3) The specialty and curriculum setup of private higher education not only follows the internal laws of school education, but also conforms to the external laws of economic development and social needs. Focusing on the needs of specific job division, it is more practical and practical. 4) Cooperation between private universities and industrial departments, and the combination of teaching and production, scientific research, and social practice are important ways for private higher education to cultivate talents and improve quality. 5) Teachers in private colleges and universities pay attention to the combination of theoretical knowledge and practical operation, and carry out teaching more targeted. The "Dictionary of Education" mentions that "education quality is an evaluation of the level and effectiveness of education", and "ultimately reflected in the quality of training objects" (Zheng Yi, 2019). Therefore, the quality of talent cultivation in private universities is a comprehensive evaluation of the level and effectiveness of talent cultivation through comprehensive consideration of whether the training concepts, objectives, subjects, and approaches of private universities meet market demand.

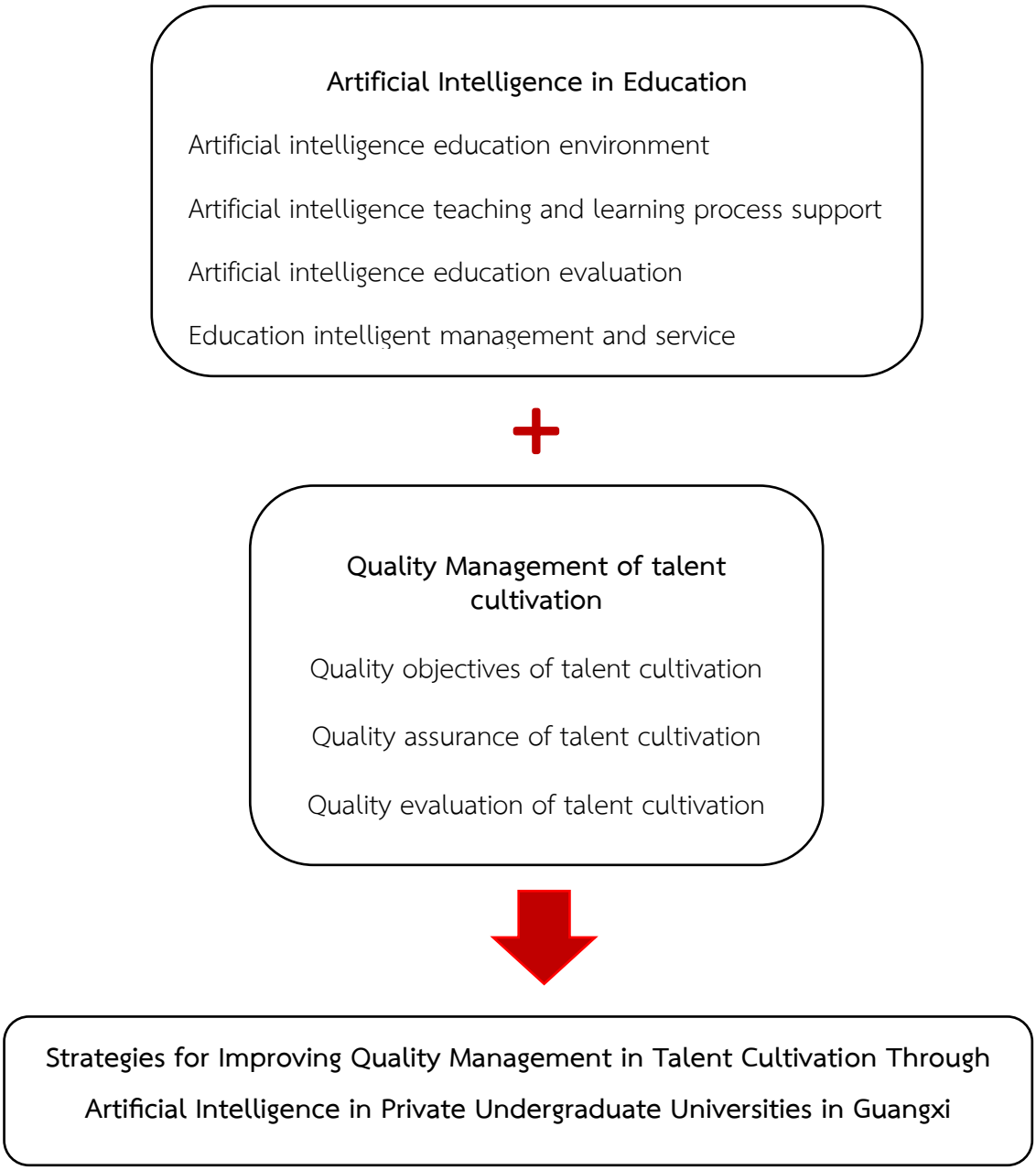
To sum up, the quality of talent cultivation in private universities should not only meet the national quality standards for talent cultivation, that is, the overall development of morality, intelligence, physical fitness, beauty, and labor, which is the overall quality requirement. Secondly, under the guidance of this general policy, private universities should establish unique and specific talent cultivation goals based on their own educational conditions, orientation, and specific social needs. This goal sets specific quality requirements for talent cultivation, and is a quality specification that measures whether the talents cultivated by private universities are qualified.

Artificial intelligence (AI) refers to "Machines imitate human intelligence" (meaning machines simulate human cognition, thinking, and learning), proposed in August 1956. Although no consensus was reached at the meeting, it gave a name to the content discussed at the meeting - artificial intelligence (Song Lingqing, 2018). In 2018, the National Standardization Administration of China released the "White Paper on Standardization of Artificial Intelligence 2018", which authoritatively stated that "Artificial intelligence is a theory, method, technology, and application system that utilizes digital computers or machines controlled by digital computers to simulate, extend, and expand intelligence, perceive the environment, acquire knowledge, and use knowledge to achieve the best results.".

Private university refers to ordinary institutions of higher learning that mainly implement undergraduate education. The main body of education is non-governmental organizations and individual citizens, except for national government agencies and state-owned enterprises and institutions. The funding for running a school is private funds funded by non-state financial allocations, and is held in accordance with relevant regulations of China's national and local higher education, which is different from schools of a nature such as training institutions. It enjoys the same status as a state-owned ordinary university, focusing on school-running characteristics, highlighting the personalized development of students, and emphasizing the cultivation of students' practical application ability and core competitiveness based on market mechanisms.

According to the total quality management theory and constructism theory, the research framework of this paper is shown in Figure 1.1:

Research Framework



Chapter 2

Literature Review

In the new era, artificial intelligence technology is gradually applied in the field of education, and has broken through the limitations of education, teaching, and management. Based on relevant literature, this paper analyzes the current research situation of artificial intelligence in improving the quality management of talent cultivation in private colleges and universities, in order to recognize that the impact of artificial intelligence development environment on the quality management of talent cultivation in private colleges and universities is of crucial significance for the development of higher education.

In this study, the researcher referred to the research on the application status and development trend of artificial intelligence education, the research on the quality standard system of talent cultivation in higher education, and the literature and related research on promoting the exploration of talent cultivation in private undergraduate colleges. He analyzed the relevant principles and concepts of total quality management theory and Constructism Theory. Therefore, the literature analysis and related research results from the following aspects are as follows:

Concept of Educational Quality Management

Concept of the quality management of talent cultivation

Concept of artificial intelligence in education

Concept of strategies for improving quality management of talent cultivation through artificial intelligence in private undergraduate universities

Concept of total quality management theory

Concepts of Constructivist theory

Relative Researches

1. Concept of Educational Quality Management

1.1Meaning of Educational Quality Management

Lian Huajuan (2018) proposed quality management from the perspective of evaluation system construction, which is an analysis of the currently constructed evaluation system, and uses improvement of management functions, quality process control, quality effect assurance, quality standards, and quality responsibilities and goals set by schools to achieve evaluation of education quality. The construction of the quality management evaluation system mainly includes the following aspects: teaching evaluation, teacher evaluation, school evaluation, and student evaluation.

Xu Hao (2017) proposed education quality management from the perspective of process management, which is aimed at directing and controlling the implementation of education quality. The main content includes establishing quality objectives, formulating quality policies, implementing planning and control for quality, and implementing assurance and improvement for quality. The main characteristics of education quality management are comprehensiveness, whole-process, standardization, and dynamism. It should be viewed as a comprehensive process management model that can comprehensively reflect the overall educational quality objectives and direction requirements of schools.

Guo Qin (2013) proposed education quality management from the perspective of total quality management, which is a management philosophy based on work needs and expectations. In its management process, it is a quality management model that takes quality as the core and is based on the participation of all employees, in order to maximize the continuous satisfaction of customers, society, and all members of the organization at the most economical cost, thereby emerging.

Li Juanhua (2005) proposed education quality management from the perspective of ISO9000, which is one of the universal international standards. This is to propose that the ISO9000 international standard is fully applicable in the

management of educational quality in colleges and universities based on the case studies of some colleges and universities. From this perspective, the international standard ISO9000 can also be adopted in the education quality management of private colleges and universities to implement quality supervision throughout the education process.

1.2 Importance of Educational Quality Management

Li Dan (2019) proposed in his research on the education and teaching quality management system of private universities that the importance of construction is mainly reflected in three aspects, namely:1) Cultivate integrity and cultivate the mind, and establish a good concept of running a school in colleges and universities. The quality of education has a direct impact on the development of universities, and at the same time, it has raised people's awareness of the importance of building good teaching quality. In the establishment of private colleges and universities, it is necessary to cultivate one's moral integrity, establish the concept of quality first, and implement active guidance for leaders, teachers, and students. Only in this way can they cooperate and work together to achieve their own behavioral constraints, thereby improving their overall quality. Guided by this goal, the entire school can actively participate in the construction of the education and teaching management system.2) Actively transform the concept of quality and talent. In talent cultivation in private colleges and universities, the main goal is to cultivate students into high-quality and highly capable talents. Based on this good education management system, it can guide schools to not only pursue academic pursuits as a value orientation for talent cultivation in education management, but also not simply use academic standards to evaluate teaching quality. By transforming their quality and values, universities can actively cultivate applied talents that adapt to social development, thereby ensuring that the talents they cultivate are more responsive to the diverse needs of society.3) Reflect the dynamic teaching mode. Establishing a

complete education and teaching management system in private colleges and universities can also provide an important guarantee for the quality of talent cultivation and management effectiveness, and is also a necessary factor for dynamic teaching. The construction of an education quality management system can fully reflect the dynamic construction and implementation of teaching models in the cultivation of talents' practical abilities, thereby achieving multi-level, multi-directional, and whole-process innovative training for talents. At the same time, the dynamic teaching model can also guide teachers to actively communicate with students in and out of class, develop students' innovative thinking and creativity, and effectively reflect the value of students' innovation.

1.3 Scope of Educational Quality Management

Yang Lilian (2017) proposed the key to achieving connotative development for education in his research on the internal quality management elements of education, mainly including the following related aspects: establishing quality objectives based on a multiple quality perspective, constructing a quality standard system based on talent cultivation objectives, and improving quality management based on quality evaluation.1) Develop quality objectives based on a diverse quality perspective. In talent cultivation in private universities, the positioning of quality objectives should not be too low. In the development of modern society, the requirements of the government and society for graduates are "developmental, compound, and innovative technical and skilled talents." Based on this talent quality requirement, it is necessary to achieve it through the school talent cultivation process. As an important component of colleges and universities, private colleges and universities also need to take this requirement into account in the quality objectives and quality, not only to achieve the "external adaptability" quality concept of the government The "performance" quality concept of society should be consistent with the "internal adaptability" quality concept of schools and the "individual adaptability" quality

concept of students. Therefore, in the quality management of talent cultivation, it is necessary not only to strengthen the cultivation of students' technical abilities, but also to strengthen the teaching of professional theories, so as to guide the majority of students to improve their technical abilities on a solid theoretical basis, thereby achieving innovative development of their own abilities.2) Establish a quality standard system based on talent training objectives. The internal quality standards of education in private colleges and universities can be accurately regarded as a system, in which the quality standards of curriculum management mainly evaluate the implementation of the requirements of teaching content organization on talent cultivation objectives, and also include quality evaluation standards for various majors, courses of various subjects, and teaching plans. The quality standard of teaching behavior is to establish corresponding quality evaluation standards for teachers' teaching behavior based on talent cultivation objectives; The quality standard of teaching management process refers to the direct implementation of quality evaluation for the relevant work of education and teaching management departments, and also includes the establishment of quality evaluation standards for the work of administrative, logistics, and other management departments that provide indirect services in education. In the construction of the internal quality standard system in private colleges and universities, various standards are closely related, but there is only one goal, namely, to achieve the talent cultivation goal, under which the overall formulation of various quality management standards can be achieved.3) Improve quality management based on quality evaluation. In the management process of private colleges and universities, it is also necessary to increase the application of quality evaluation results to achieve improvement in the quality management process. The quality management and internal quality evaluation of private colleges and universities correspond to each other. Internal quality evaluation refers to a series of self-evaluation and monitoring measures

formulated by colleges and universities to achieve total quality management in colleges and universities, mainly including talent training objectives, teaching plans, talent training programs, curriculum construction, and teaching and education resource construction. The above are all internal control processes of school education quality management, It is mainly aimed at implementing self monitoring of talent cultivation quality, which can fully reflect the overall situation of talent cultivation quality. The evaluation report is not the ultimate purpose of evaluation, but mainly to improve its existing problems through evaluation, which is the ultimate purpose. Therefore, it is necessary to pay more attention to information feedback to further enhance and improve the quality of talent cultivation, thereby effectively ensuring the realization of a virtuous circle of talent cultivation.

In short, education quality is the foundation of a university, and education quality management is the entire process of education and management implemented by a university using certain methods and technologies on the premise of meeting the quality goals set. It is dynamic and comprehensive, and is related to the nature of education. The quality standards, quality objectives, quality evaluation, and quality management system of education vary from university to university, from region to region, from country to country, and from society to society. Under the basic principles of "people-oriented" and "cultivating people with virtue," we adhere to self personalized development and cultivate the talents required by society. In short, the development of education quality management in universities is of great significance to the progress of social and economic civilization.

2. Concept of the quality of talent cultivation

2.1 Definition of the quality of talent cultivation

Luo Lin (2020) stated that talent cultivation quality refers to the implementation of comprehensive and coordinated cultivation plans by universities

to make students become comprehensive talents with balanced development required by society. Schools should not only impart professional and technical knowledge to students, but also attach importance to the cultivation of students' practical ability, adaptability, ideological and moral character, and psychological quality, so that students have a high level of cultural literacy and spiritual civilization, and meet social development.

Liu Chuntao (2018) defined the quality of talent cultivation as "the degree to which graduates meet the needs of society and themselves."

Hou Xinna (2015) mentioned that the quality of talent cultivation indicates the degree to which the school's talent cultivation activities are coordinated and meet the apparent and potential needs of society and people.

Liu Man (2014) proposed that the quality of talent cultivation is one of the branches of education quality. The definition of talent cultivation quality is related educational activities aimed at students based on the objective laws of education and the fundamental principles of talent cultivation in order to meet social needs and students' individual development needs in a specific social environment.

Zhao Lingli (2009) proposed that the quality of talent is somewhat similar to the quality of goods or products. It is an educational product obtained by the educated due to their lagging development, just like a product produced after the development of enterprise economic activities. Based on this perspective, education quality refers to development quality, which mainly includes two parts: ability and quality development.

Zhang Anfu (2009) believes that the definition of talent cultivation quality in colleges and universities is the concentration of the degree to which talents cultivated by colleges and universities meet social requirements, the degree to which they achieve their own goals, and the degree to which they develop their subjectivity.

Ge Wei (2007) proposed that the quality of talent cultivation is the degree to which the talents cultivated by educational institutions meet the individual development needs and social development needs of students.

Chajid (2008) stated that the quality of talent cultivation is based on market requirements, providing customers with rich and satisfactory services and products with as little investment as possible. Specifically, it is to borrow certain methods and methods to cultivate more high-level and popular high-skilled talents for the society with the highest efficiency.

2.2 Importance of the quality of talent cultivation

The Academic Degrees Committee of the State Council (2019) issued the "Management Measures for the Authorization and Award of Bachelor's Degrees" to improve the quality of bachelor's degrees and innovative talent cultivation, proposing to "achieve the connotative development of higher education" and "firmly grasp the core point of improving the quality of talent cultivation.".

Yang Haitao (2017) proposed that combining the uniqueness of modern college education, the definition of talent cultivation quality is of great significance. It can be seen as a comprehensive talent cultivation standard that meets the needs of social development, and it also belongs to the field of education quality management in colleges and universities.

Liu Shengbo (2023) mentioned that the components of international academic influence of universities mainly include first-class disciplines, first-class scientific research achievements, first-class education quality, and first-class teacher level, mainly manifested in high-level scientific research achievements and high-quality talent cultivation. The quality of talent cultivation in colleges and universities is the key to influencing the international competition level of colleges and universities. Only by giving full play to the joint efforts between students and teachers can the quality of talent cultivation in universities be improved.

2.3 Scope of the quality of talent cultivation

Li Shun (2011) proposed that talent cultivation goals mainly include two parts, namely, quality goals, namely, the internal cultivation of a person, mainly including personal psychological quality, knowledge literacy, and moral quality; Competency goals are the abilities that individuals can contribute to society, mainly including innovation, learning, and social skills.

Bao Hanrui (2005) proposed that in the development process of the evaluation index system for teaching level in modern colleges and universities, the relevant factors that have an impact on the quality of talent cultivation mainly include the correct guiding ideology of the school, the scientific talent cultivation model, high-quality teachers, an effective teaching management system, and a good teaching environment.

Li Yanping (2022) believes that the evaluation indicators for the quality of talent cultivation include five aspects: ideological and moral education, basic theory course scores, passing rate of CET-4, graduation thesis (design), and graduate rate.

To sum up, the components of talent cultivation are diverse and constantly evolving. The quality of talent cultivation is a part of education quality management and a core indicator for judging education quality. The objectives and methods of talent cultivation vary, leading to difficulty in unifying the evaluation of talent cultivation quality. Ensuring the positive development of talent cultivation quality is the cornerstone of ensuring the development of education, and is also the main task of universities. Therefore, it is the mission of higher education to provide high-quality educational products and services (including classroom teaching, social practice, daily affairs management, etc.) to enable talents (students and teachers) to achieve self-improvement and growth, and meet the needs of social development.

3. Concept of artificial intelligence in education

3.1 Definition of artificial intelligence in education

Zhang Kunying and Zhang Jianian (2017) pointed out that "artificial intelligence+education" refers to the application of artificial intelligence in education (learning), the construction of educational scenarios, the reorganization of elements in education, or the reconstruction of educational processes.

Yan Zhiming and Tang Xiaxia (2017) believe that educational AI is a new field formed by the combination of AI and learning science. Educational AI focuses on using AI technology to gain a deeper and more microscopic understanding of how learning occurs and is influenced by various external factors (such as social economy, material environment, science and technology, etc.), thereby creating conditions for learners to learn efficiently.

Yao Shangjian (2023) believes that AI+education is a cutting-edge comprehensive discipline that integrates computer science, statistics, brain science, and social science. Its goal is to hope that computers have the same intelligence as humans, and can replace humans to achieve multiple abilities such as recognition, cognition, classification, prediction, and decision-making... From the perspective of technological evolution, the development of big data to AI is a very natural migration process.

Wang Yafei (2018) proposed that for AI+education, it is usually based on educational business and scenarios, combining the characteristics of qualified AI technologies, products, and related solutions, to construct an intelligent education model with AI educational applications as the goal.

Yang Zongkai (2022) mentioned that colleges and universities should comprehensively and systematically explore the talent cultivation system of intelligent education from aspects such as knowledge system, curriculum system,

professional structure, faculty, teaching evaluation, scientific research organization, and security mechanism.

Zhu Zhiting (2020) believes that AI education provides assistance to humans in various situations, from pure learning assistance to truly personalized education, which is a transcending discipline under the integration of knowledge from various disciplines, as well as a hybrid intelligent intelligence.

He Yangyang (2020) believes that artificial intelligence education is a course that trains students to master the basic principles and knowledge of artificial intelligence, experience and apply artificial intelligence technology, and use artificial intelligence technology to attempt innovative solutions to real-world problems.

Zhang Jinbao (2021) pointed out that artificial intelligence education is an education that cultivates key intelligent talents such as engineering thinking, artificial intelligence thinking, and computational thinking. It should take promoting individual understanding and intellectual development as core values, and construct educational ontology knowledge of technological practice and methods, as well as core concepts and ideas of artificial intelligence.

3.2 Importance of artificial intelligence in education

Xi Mengru (2021) proposed that there is a close relationship between artificial intelligence and education, and the in-depth application of artificial intelligence technology in the field of education will effectively promote reform and development in the field of education.

Li Dengsong (2020) said that intelligent education is closely related to information technology courses, which is a more in-depth training of students' scientific thinking ability, and is also an important way and means to help students establish a scientific cognitive system and improve their information technology ability.

Ma Xiulin (2022) believes that from the perspective of the elements of education occurrence, the application of educational artificial intelligence has an impact on the evolution of the educational environment, educational tools, educational activities, and educational evaluation, further contributing to the realization of personalized education. The widespread application of artificial intelligence technology not only improves the level and speed of educational reform, but also provides many conveniences for students, teachers, and parents to learn and work.

Sang Xinmin (2022) expressed that by making full use of artificial intelligence data mining and "deep learning" means and tools, human beings can continuously improve their ability, literacy, and wisdom to distinguish truth from falsehood, distinguish good from evil, and recognize beauty and ugliness.

Wang Yuhua (2022) said that college students are the main force in the future national construction. In today's rapid development of science and technology, universities need to cultivate high-quality talents to adapt to social development, and artificial intelligence education has become a content that cannot be ignored.

Wu Xiaoru (2018) pointed out that artificial intelligence technology has injected new vitality into traditional school education, promoted changes in teaching, learning, and management models, and enabled education to continuously shift from quantitative to qualitative changes in model changes over and over again. The contemporary educational model is gradually moving towards a personalized learning model that is more innovative and student centered.

3.3 Scope of artificial intelligence in education

Woolf (2013) proposed five key areas of artificial intelligence in the field of education: 1) providing virtual tutors for each learner; 2) Develop 21st century skills to assist learners in achieving self-positioning and self-assessment; 3) Learning interaction data analysis, including collection and analysis of big data such as

personal learning interests and learning environment; 4) Popularize global classrooms and increase global connectivity; 5) Promote lifelong learning and all-round learning, allowing learning to enter daily life and society.

Liu Zhenzhen (2020) pointed out that the key technologies of educational AI are mainly embodied in knowledge representation, machine learning and deep learning, natural language processing, intelligent agents, emotional computing, and other aspects. Its application and development trends are concentrated in the fields of intelligent tutors and assistants, intelligent evaluation, learning partners, data mining and learning analysis.

Wang Zhipeng (2022) mentioned that China's research on "artificial intelligence+education" mainly focuses on the application connotation, application mode, application scenario, application problems, and solution strategies of artificial intelligence technology in the field of education.

Niu Shunjun (2019) proposed that in artificial intelligence+education research, there are mainly five aspects, namely: 1. Support for intelligent learning processes. That is, to implement intelligent diagnosis and recommendation during the learning process. That is, to diagnose obstacles existing in the learning process of students, and to achieve automated recommendation of personalized teaching materials, curriculum development, and personalized learning content. 2. Intelligent campus. Intelligent systems mainly include campus security detection and early warning, intelligent classrooms, intelligent libraries, and intelligent writing systems. 3. Intelligent disciplinary tools. With the application of intelligent discipline tools, the learning process can achieve real-time collection of massive teaching and practical learning data, and implement fine-grained analysis on it, which can timely track the knowledge and ability development of each learner, further improve the accuracy of learning analysis, and implement intervention and assistance for learners' learning work. 4. Smart robot companions and toys. Its main role is to provide assistance for

parents' education, actively provide suggestions for students' learning, and build a collaborative relationship with school education. 5. Special education intelligent assistant. Provide convenience for learning for special groups, mainly including hearing impaired assistance, visual impaired assistance, language communication, intelligent prosthetics, and overcoming autism.

Yu Shengquan (2020) pointed out that the application of artificial intelligence in education can be divided into five aspects: intelligent education environment, intelligent learning process support, intelligent education evaluation, intelligent teacher assistant, and educational intelligent management and service.

In short, with the release of policy documents such as the "Action Plan for AI Innovation in Colleges and Universities" and the "Action Plan for Education Informatization 2.0", the importance of AI education in China has become increasingly prominent, and the application of AI technology in the field of education will also be further deepened and expanded. Today's education is experiencing unprecedented technological integration and innovation, which is an inevitable trend in the development of future education. How to strengthen the deep integration of artificial intelligence and subject education, and how to improve the safety of artificial intelligence and education before are all issues that need to be considered in future education.

4 Concept of strategies for improving Quality Management of Talent Cultivation through artificial intelligence in private universities

4.1 Meaning of the strategy

The direction of this strategy is how to improve the quality of talent in private universities in Guangxi through artificial intelligence, how to shorten the educational gap, achieve educational equity, and improve the educational level in underdeveloped areas through modern intelligent methods. In the context of high-

quality education development, educational fairness is changing from a starting point of fairness to a process of paying more attention to the development needs of students and a result of giving full play to individual potential. Artificial intelligence can help improve learning outcomes, improve education quality, and promote educational equity. It has become a core driving force for accelerating education towards greater equity and quality. People's expectations for education are no longer satisfied with "learning" and providing educational resources, but they pay more attention to "learning" and providing educational resources. The high-quality development of education urgently requires innovation in teaching models and methods. Some scholars believe that the key to AI enabling educational innovation lies in the entire process of educational data collection and interaction. Therefore, establishing accurate student portraits and providing a data base for teaching will make teaching more efficient. At the same time, respecting the individual differences of students has become the ultimate goal of fair pursuit of educational results. Artificial intelligence makes large-scale personalized education possible through precise assistance and diversified high-quality supply. The basic strategy for private colleges and universities to use artificial intelligence to promote the construction of talent cultivation quality management is a development strategy, because talent quality standards change according to changes in internal and external environmental factors, and are dynamic.

From a theoretical perspective, first, the in-depth analysis of the internal logical mechanism of AI driven quality management in higher education and the construction of a logical analysis framework are conducive to deepening the understanding of the inherent laws and essence of the digital transformation of private undergraduate education, making up for the shortcomings of current theoretical research on human intelligence driven private higher education development, and expanding and enriching the theoretical system of higher

education development. Secondly, exploring the transformation and development path of private higher education from the perspective of artificial intelligence application is conducive to expanding the theoretical research perspective of private higher education development, applying the cross research methods of experimental economics and educational science, helping to deepen the exploration of cross knowledge and cross theory in the field of artificial intelligence and private higher education, and promoting the formation and development of new ideas and theories. Thirdly, the empirical evaluation of the effectiveness, development trends, and influencing factors of artificial intelligence in improving talent cultivation and management in private higher education can help enrich the quantitative research results of artificial intelligence in promoting the digital transformation of higher education, and consolidate the empirical support of existing research.

From a practical perspective, first, the relevant research results have important practical significance for Guangxi to use information technology represented by artificial intelligence to promote the digital transformation of private university education, build a high-quality, inclusive, and sustainable private education system, solve the problem of high-quality resources in private education, promote education equity, and consolidate school diversification. Secondly, the relevant results of empirical research can provide reference for relevant functional departments such as education to deepen the reform of private education, formulate and implement policies and plans for the development of private education, and monitor the development trends of private education. Thirdly, relevant research results, especially the proposed multi-dimensional promotion path, can provide theoretical and practical reference for promoting high-quality development of artificial intelligence and improving the development of private education in Guangxi and other regions.

4.2 Importance of the strategy

In 2021, the Chinese government proposed the construction of a high-quality education system in the "Fourteenth Five Year Plan" for the National Economic and Social Development of the People's Republic of China, and clarified the overall direction of education reform and development in the new era. The innovative drive of the industrial revolution in the new era and the transformation of the main contradiction in education make it necessary to optimize the supply of education, improve the quality of talent cultivation, and provide new technical support. "Quality equity" is the new mission of Chinese education in the new era. Education fairness is shifting from starting point fairness to process fairness and result fairness. Among them, education starting point equity refers to equal opportunities in infrastructure allocation and investment, high-quality teachers, and social resources; The fairness of educational process refers to the fairness of teaching methods and content; Equity in educational outcomes refers to equity aimed at achieving large-scale personalized education. Tang Renchun (2010) stated that improving the application and promotion of quality management strategies in universities will enhance the confidence of TQM and ISO9000 quality standard systems, and play a positive role in the widespread application of TQM and ISO9000 family standard quality systems in China's higher education institutions, which can better improve the management and management level of education quality in universities and colleges, and can better play a fundamental role in the development of the country. Yang Xianmin (2018) believes that using AI technology to improve quality management strategies in universities can solve several levels of educational problems: 1. Compensatory education for special populations; 2. Alternative education for regular business; 3. Personalized education services. In short, this policy research is the product of the integration of information technology theories led by artificial intelligence and big data technology with relevant theories such as education and teaching, and has certain theoretical guiding

significance. This strategy is also a reflection of actively corresponding national policies, and is one of the important measures to revitalize the country through science and education and strengthen the country with talents.

4.3 Development of strategy

At present, China has made significant achievements in the development of education, but there are still problems in the development of AI enabled education, such as uneven development, insufficient technology application, and difficult implementation of policies; The lack of scientific and systematic top-level design has become one of the important factors impeding the progress of education towards greater fairness and quality. In order to ensure the resonance and integrated development of AI and education in the new era, we should establish a high-quality development framework of "AI+education" based on local and global perspectives. Specifically, in terms of management planning, the government and education departments should establish an AI enabled education innovation and reform expert team, guide and coordinate the pilot implementation of AI action plans, and promote high-quality development of education; In promoting the implementation, it is necessary to take the fundamental task of establishing morality and cultivating people, take difficult problems and target achievements as the guidance, concentrate effective resources, use artificial intelligence to break through the key and difficult points of high-quality development of education in the new era, and promote the differentiated development of basic education, vocational education, higher education, and lifelong education at different stages; In terms of exploration and innovation, accelerate the construction of scientific and technological forces and key research projects in artificial intelligence, increase support for basic research and interdisciplinary application research related to artificial intelligence, stimulate the sustainable development potential of artificial intelligence in the field of education, and promote the integrated development of artificial intelligence and education.

5. Concept of total quality management theory

5.1Definition of Total Quality Management Theory

A. V. Feigenbaum (1961) stated : "Total quality management (TQM) is an effective system that integrates the activities of various departments within an enterprise to develop, maintain, and improve quality by conducting market research, design, manufacturing, and after-sales services at the most economical level, taking into account the full satisfaction of customer requirements" in the book "Total Quality Control". He believes that the connotation of TQM is quality centered and based on the participation of all employees, with the goal of satisfying customers and making all the organizations "Stakeholders such as individuals, employees, suppliers, partners, or society benefit in order to achieve long-term success for the organization.".

Deming Edwards Deming (1989) proposed the PDCA cycle theory, which means that quality management is divided into four stages, namely, Plan, Do, Check, and Act. In quality management activities, it is required to plan, implement, and check the implementation effect of various tasks in accordance with the plan, and then include the successful ones in the criteria. Unsuccessful ones are left to the next cycle for resolution. The entire process of proposing total quality management activities is the process of formulating and organizing the implementation of quality plans. This process operates in a PDCA cycle without pausing.

J. M. Juran (1979) proposed the viewpoint of the "quality triad", which divides the management process into three steps: planning, control, and improvement. He believes that the entire process of quality management includes the participation of the top management, the popularization and training of quality knowledge, the definition of quality practicality, and the operation method of quality improvement project by project. He believes that TQM is "a collection of all the ideas, concepts, methods, and tools used to manage quality in the world today.". This definition

means that total quality management theory is in the process of dynamic inheritance and development, and total quality management advocates continuous innovation in management methods.

Philip Crosby (1962) proposed the concept of "zero defect management", which refers to the comprehensive management of the entire process at all levels of each link in the operation based on the purpose and goal, to ensure that the defects of each element at all levels of each link tend to be "zero". It is advocated that enterprises exert their subjective initiative to conduct business management. Producers and workers should strive to ensure that their products and businesses have no shortcomings, and strive towards the goal of high quality standards.

Ishikawa Kaoru (1961) proposed the "Quality Control Circles" movement, which can be understood as a quality control team that solves quality related issues on a voluntary basis, and employees work together to improve product quality, becoming an indispensable part of the overall quality management function. He also pointed out that the characteristic of quality management throughout the company is that the entire company is involved in quality management, from the top management to all employees. Not only do research, design, and manufacturing departments participate in quality management, but sales and material supply departments, as well as management departments such as planning, accounting, labor, and personnel, also participate in quality management strategic organizations.

In ISO 8402:1994, the definition of total quality management is that an organization is quality centric, based on the participation of all employees, and achieves long-term success through customer satisfaction and the benefit of all members of the organization and society. "All staff" refers to personnel from all departments and levels in the organizational structure.

5.2 Importance of Total Quality Management

Pan Yanmin (2020) believes that the only way to achieve total quality management in universities is to learn from the overall quality management concept of enterprises and explore cutting-edge education concepts and management systems in universities to achieve system reform and improve quality culture. It is believed that the quality culture in colleges and universities is of great significance in promoting the realization of full participation and comprehensive ability improvement.

Li Jianzhong (2022) stated that the rational use of total quality management can effectively improve product quality, improve efficiency, enhance the quality culture level of the organization, enhance member morale, reduce trial and error costs, and enhance competitiveness.

Liu Guangdi (2021) mentioned that, in order to meet the needs of various organizations and the entire society, quality management (QM) has been regarded as the main course for graduate and undergraduate students in university management, as well as the main elective course for all undergraduate students, and more and more academic, theoretical, and practical research has been carried out.

Huang Wenjuan (2019) believes that introducing the idea of total quality management in universities, clarifying the quality objectives of academic dissertations, and taking this as a basis, systematically considering many factors and links in the quality formation process, and formulating systematic management measures have practical and long-term significance for ensuring and improving the quality of academic dissertations.

Li Huihui (2018) mentioned that TQM has the advantages of cross-cultural success and portability. From the implementation results of TQM in the enterprise community, it can be seen that it can bring product quality assurance and

organizational excellence. TQM can provide quality assurance for education, achieve customer satisfaction, and organizational excellence.

Geng Dianming (2013) believes that total quality management is an organic combination of professional technology, management technology, and statistical technology for higher education. It is a management approach to build a scientific, rigorous, and efficient quality management system, control factors that affect quality in the process of cultivating talents, continuously provide students or teachers with the required products, and achieve long-term success through the benefits of members of the organization and society.

Ban Xiuping (2016) mentioned that total quality management comes from the business community in Western countries, which is a management philosophy that emphasizes all employees, all aspects, and the entire process. This is a concept that enterprises, service industries, and government management attach great importance to, and education, as an important component of the service industry, should also follow this concept. From the perspective of education and scientific development, the concept of emphasizing the comprehensive development of all elements of students not only meets the needs of social development, but also conforms to the laws of educational development.

5.3 Scope of Total Quality Management

Dai Ming's (1989) Dai Ming ring theory mainly includes four stages, namely: 1. the planning stage. Namely, for analyzing and diagnosing, setting goals for quality improvement, and determining corresponding measures and methods; 2. Execution phase. That is to implement division of labor arrangements and implementation in accordance with predetermined plans, goals, and measures; 3. Inspection or research stage. Implement control measures against acne according to the plan requirements, check and verify the effectiveness of the execution, and promptly identify any issues that may arise during the execution; 4. Processing stage. There are mainly two steps,

which are to summarize successful experiences in execution and transform them into standard implementation and consolidation. To address the issues and unsuccessful results during the execution process, they will be included in the next cycle for implementation.

J.M. Juran (1979) proposed the viewpoint of "Quality Trilogy", which divides the management process into three steps: 1. Planning (i.e. establishing product objectives, establishing work procedures capable of meeting quality standardization). 2. Control (i.e. establishing performance standards to provide reference and basis for mastering when to take necessary measures to correct quality issues). 3. Improvement (identifying problems and finding solutions).

Li Huihui (2007) proposed several basic elements of total quality management: customer focus, strengthened leadership, full participation, process methods, system management, and continuous improvement.

Overall, total quality management is a continuously dynamic development and progress, based on the participation of all members of the organization in quality control, using customer satisfaction as a metric to establish quality objectives, emphasizing the matching degree of quality objectives and quality results, achieving full staff, all-round, and whole-process management, ultimately benefiting customers, organizational members, and society. The application of total quality management theory in the field of education is becoming increasingly widespread, which is of great significance for enhancing the comprehensive competitiveness of individuals, schools, and society, and is more conducive to the historical development of education. How to establish educational quality objectives, how to implement the educational management process, how to utilize educational management tools, how to ensure the participation of all educational subjects, and how to test educational quality achievements are all issues that need to be discussed in the practical process. This article mainly adopts Dai Ming's PDCA cycle theory in total quality management

theory. Every week of PDCA cycle, the relevant talent cultivation and education level will be improved, and the quality management issues of schools will be correspondingly improved.

6. Concepts of Constructism Theory

6.1 Definition of Constructism Theory

Jean Piaget (1966) believed that learning is a process of acquiring knowledge, which is not imparted by teachers, but rather acquired by learners in a certain context (i.e., in a sociocultural context), with the help of teachers and learning partners, using necessary learning materials, and through meaning construction.

Vygowski (1970) emphasized the discovery activities of students under the guidance of teachers. Secondly, the component of teacher guidance will gradually decrease, and ultimately, students will reach the level of independent discovery. The responsibility for monitoring learning and exploration will be transferred from teachers to students.

D.J. Cunninghan (1991) once said, "Learning is a process of constructing internal psychological representations. Learners do not transfer knowledge from the outside to memory, but instead build new understandings based on existing experiences through interactions with the outside world.".

Leslie P. Steffer (2002) proposed that knowledge does not simply come from the subject or from the object, but is constructed based on the interaction between the subject and the object. In this process, the acquisition of meaning from new experiences needs to be based on previous experiences, and the introduction of new experiences can also lead to changes in previous experiences, which can enrich, adjust, or transform them, which is a two-way construction process. Therefore, it is proposed that learning itself is a process of implementing two-way construction between the subject and the object.

Fu Rong (2019) believes that constructivist learning refers to determining the central position of students and the auxiliary position of teachers in teaching, promoting teachers to become organizers of the teaching process, designers of classroom themes, and guides of students' autonomous learning. During the teaching process, through classroom settings, after-class exercises, and social practice, students' learning initiative is brought into play, and students are helped to reconstruct their existing knowledge reserves.

Li Pin (2016) emphasized the central position of learners in the educational process, emphasized the exertion of learners' subjective initiative, strengthened students' subjectivity in understanding and absorbing knowledge, emphasized the use and interaction of students' existing knowledge and experience, and emphasized the construction of a learning environment. He believed that scenario, writing, conversation, and meaning construction are the four major elements of creating a good environment. The primary task of educators is to set up corresponding learning scenarios, Encourage students to reflect and communicate to achieve the teaching goal of connecting existing knowledge and experience with current new knowledge, and mastering the basic laws of things.

6.2 Importance of Constructism Theory

Chen Wei (2007) proposed that under the guidance of constructivism, not only can a new set of learning theories be formed in the learning process, but also new teaching theories can be formed. Its application in learning and teaching has provided a new explanation, as well as a new direction for teaching reform.

Jia Fang (2016) believes that the correct guidance of Constructism Theory can cultivate students' innovative spirit, innovative ability, and cooperative spirit.

Mei Hua (2018) stated that constructivism theory has unique advantages and plays an important reference role in teaching method innovation, teaching ideology transformation, talent cultivation, and other aspects, which is conducive to

promoting university reform. He even believed that it has a sustained and far-reaching impact on the entire education community.

Minawa (2019) believes that constructivism theory mainly explores the study of human cognition and has an important guiding role in the development and utilization of educational resources.

6.3 Scope of Constructism Theory

Ding Yuankun's (2003) concept of Constructism Theory is the concept of knowledge. That is, to believe that knowledge is not an accurate representation of the display, but only an explanation, hypothesis, or hypothesis put forward by people for the objective world, and is not the ultimate answer to the question. In human development, there will also be continuous reform, sublimation, and rewriting, and new interpretations and assumptions will emerge; Knowledge does not provide an accurate summary of the laws of the world, nor does it provide the best method for all activities or problem solving. Knowledge is situational in the process of solving problems, requiring reprocessing and re creation for specific problems; For knowledge, language provides an external form, and even its propositions are widely recognized. However, learners also have the same understanding of knowledge. In the process of knowledge learning, true understanding can only be built on the learner's own experience background, and learning activities in specific contexts have a direct impact on it.

Shen Jing (2005)'s concept of Constructism Theory is learning perspective. That is, to propose that the essence of human knowledge is the "construction" process of the subject. All knowledge is the result of the subject's own cognitive activities, and the subject realizes the construction of its own understanding through the application of its own experience. Therefore, learning is not simply a direct transfer of knowledge from teachers to students, but rather requires students to construct their own knowledge. Students are not able to passively accept information stimuli during

the learning process. They should actively construct their own knowledge system, combine their own experience, and with the help of others, actively apply the required learning resources, and obtain relevant knowledge under meaning construction. This is the active selection, processing, and processing of external information by students during the learning process, in order to achieve the construction of their own meaning; Learning is not simply about inputting, storing, and extracting information. It is a two-way interactive process of implementing new and old knowledge and experience, that is, a series of interactive processes for learners and the learning environment. Therefore, in Constructism Theory, there are four elements in the proposed learning environment: context, collaboration, conversation, and meaning construction. As for the amount of knowledge acquisition, as long as it is influenced by the learners' ability to construct relevant knowledge based on their own experience, it is not affected by the learners' memory and recitation abilities. Learning quality is a function of learners' own ability to construct meaning, not a function of teachers' ability to reproduce their thinking.

Xue Guofeng and Wang Yahui (2003) focus on the concept of Constructism Theory as a teaching perspective. That is to say, in the teaching process, students' experience cannot be ignored, and new knowledge is simply never introduced. Instead, it needs to be based on the students' current knowledge and experience, thereby guiding students to "grow" new experience from previous knowledge and experience. Teaching is not about knowledge transfer, but rather about processing and transforming knowledge. Teachers themselves cannot be seen as the presenters and transferers of knowledge, and they need to increase their emphasis on students' own understanding of certain phenomena, listen to students' views, and understand the origin of students' ideas, in order to enrich or adjust their own understanding. Guided by constructivist theory, teachers should view themselves as facilitators, helpers, and collaborators of students' learning, as well as organizers, coordinators,

and mentors in the teaching process. For teaching activities, they can also be viewed as a creative activity to cultivate students' subjectivity. In teaching activities, students themselves are active participants, as well as active builders of knowledge. The requirement of constructivism theory for teaching activities is to give students full respect for their subjective status, maximize their self-consciousness, initiative, and creativity, and further enhance their subjective awareness and creativity, so as to be able to cultivate students as social subjects who can implement self-education. It is proposed that in the teaching process, it is necessary to pay more attention to factors such as students' original knowledge background, social culture, and emotional attitudes, and fully recognize the comprehensive role of these factors in cognitive learning.

In summary, Constructism Theory is a relatively cutting-edge learning theory, which highlights the central position of "learners" compared to traditional learning theories. It is believed that teachers are not blindly inculcating the inherent knowledge of textbooks, but rather becoming organizers, guides, and guides of learning. Their main task is to create corresponding learning conditions for students, provide learning assistance, and fully stimulate their subjective initiative. Students' "learning" is not limited to fixed standard answers, but based on objective facts, explore their own answers that conform to reality, emphasizing initiative. In short, the theory pays more attention to students' autonomous learning ability and practical innovation ability.

7. Relative Researches on Artificial Intelligence in the Field of Education

7.1Relevant researches on artificial intelligence in the field of education abroad

The earliest application of artificial intelligence technology to teaching was a new type of programmed teaching machine developed by B. F. Skinner in 1958. It stores and presents textbooks to learners through a database, accepts each learner's questions, and promptly answers and gives feedback, thereby enhancing learner autonomy and learning motivation (Baker Blane, 2021; Gao Wenchao et al., 2018). Since then, research on the application of AI technology in teaching has continued to emerge, including in classroom practice and the application of collaborative collaboration between teachers and students (Jongwan Kim, 2013), and significant research results have been achieved. For example, combining AI technology with fields such as psychology, pedagogy, and sociology, many AI teaching applications have been developed, such as Intelligent Learning Guidance System (Acquiredat, 2021; Xiaodong Huang, 2021).

Masters Ken and Michael J (2018) believe that the application and development of artificial intelligence in the field of education enables teachers to better integrate into students' learning and effectively promote teacher teaching. In the future, collaborative robots for teaching will help teachers appear in future classrooms and provide corresponding cases. Carbonell et al. (2019) believe that in the development of human-computer interaction, people can interact with computers and smart phones through body movements, and the integration of body-based applications and classroom teaching makes students' learning experience more active and joyful. At the beginning of the 21st century, the Office of Educational Research and Development of the United States Department of Education promoted a research project called "The Role of Information Technology in Promoting Learner Development". The results showed that information technology development can contribute to changes in the roles of teachers and students, and can also stimulate learners' learning motivation, improve collaborative inquiry ability, and achieve collaborative learning models (Carbonell, 2019; Jongwan Kim, 2013;).

According to the National Strategy for the Development of Artificial Intelligence in the United States in 2017, the United States is empowering contemporary and future generations of Americans with the skills they need, even if education adapts to future labor needs and provides the skills needed in the 21st century (Eric Eaton and Sven Koenig, 2018; Acquiredata, 2021). In addition, in their book "The Learning Revolution Caused by Artificial Intelligence", British educationists Self and Oser analyzed that artificial intelligence uses computing as a medium to make learners gain in learning, and elaborated on the application and development of computer-assisted instruction in simple terms (Kim Kapsu, 2017; Thomas K, 2020). Laurie B. Forcier (2016) reviewed and summarized the development trend of artificial intelligence in the field of education, and proposed that the application of artificial intelligence in the field of education mainly includes three aspects: providing personal tutors for combining individual students, providing intelligent support for collaborative learning, and implementing intelligent virtual reality. Linda Campbell (2015) proposed that under the application of artificial intelligence technology, teachers can construct problem situations for students in teaching activities to create immersive experience effects for students. Moreover, the application of experiential and exploratory learning methods is more conducive to cultivating students' core literacy.

In addition, in terms of artificial intelligence products, Holotescul (2018) developed a teaching robot MOOC Buddy serving the MOOC platform, which can select an adaptive learning resource for each learner based on their characteristics. Baynell (2019) developed an intelligent teaching assistant, Botty, based on Muke Learning, and found in classroom design that intelligent teaching assistants can harmonize the relationship between teachers and students and improve classroom teaching effectiveness. However, it should be noted that Botty's intelligent teaching assistant is not a complete replacement for teachers, but rather aims to achieve how

to connect teachers, students, and technology, thereby better improving and improving teaching efficiency.

7.2 Research on Artificial Intelligence in Education in China

Domestic research on artificial intelligence in the field of education mainly focuses on the following aspects:Firstly, in terms of the application of artificial intelligence in the field of education, it is believed that artificial intelligence is an innovative element driving the transformation of education digitization (Liu Sannvya, 2021). Jiang Shuhui and Jiang Shiyin (2019) believe that artificial intelligence technology, as a new type of productivity factor, is continuously influencing and changing the world. How to integrate artificial intelligence and education will become a core issue of future education concern. Du Zhanyuan (2018) proposed that in school education, it is necessary to cultivate students' ability to apply information technology from an early age, thereby promoting the transformation of students towards improving their information technology literacy. Therefore, in school education, it is necessary to change the goal of talent cultivation and increase the cultivation of students' critical and creative abilities in order to improve their practical abilities. Li Zhengtao (2017) proposed that in the process of teacher teaching preparation, teaching, and evaluation, it is necessary to increase the application of intelligent machines to improve teachers' data analysis capabilities. Zhou Shuang and Liu Xinhao (2020) believe that artificial intelligence drives the transformation of ideological and political education methods and teaching evaluation in universities, boosting accurate ideological and political education in universities and achieving accurate education. Zhi Yuan (2018) believes that the educational form has been reconstructed in an intelligent environment, and educational goals and learning connotations have been updated. Defining and constructing high-quality learning spaces is an important educational topic in the intelligent era. Li Shijin and Wang Chenglong (2022) believe that artificial intelligence is the key to promoting high-

quality and sustainable development of education ecology. Guan Jia et al. (2022) believe that the rapid development of artificial intelligence technology provides new development opportunities for personalized cultivation of top talents. Yu Minhong (2018) proposed that in the future development of school education, most of the content taught by teachers will be replaced by intelligent devices in the next decade. The most important thing in the education process is to cultivate students' positive transfer of learning knowledge, and strengthen the cultivation of students' innovative and creative abilities and critical thinking. Hua Lulu (2018) proposed that under the application of artificial intelligence, it can provide assistance for teachers in preparing lessons and precision teaching. Teachers need to improve their humanistic care for students, thereby achieving innovation and reform in teaching content and work, and enhancing creativity in the teaching process. In addition, under the application of intelligent machines, students' learning methods will also undergo certain changes. In the interactive learning process between people and intelligent devices, it is more conducive to achieving deep learning for students and fully tapping their potential.

The second is the mechanism of artificial intelligence driving education development. Jiang Shuhui et al. (2019) believed that the development of educational AI enabling education resources, the cultivation of students' core literacy, and the construction of intelligent learning spaces should be explored from three dimensions to explore the development of educational AI enabling education. Tang Yuxi et al. (2022) explored the role and impact of artificial intelligence on education, starting from the legitimacy, professional challenges, and development direction confusion faced by teachers in the era of artificial intelligence. Song Yu (2021) has proven that artificial intelligence technology can effectively identify classroom teaching characteristics and refine classroom teaching models, making classroom teaching more effective in teacher-student interaction, more diverse in knowledge construction and problem exploration paths, and exerting multiple cognitive

functions through hybrid neural network technology. Zhang Zhiyong (2017) proposed that in the future development of education, human development should be taken as the standard, and in combination with the requirements of socialism with Chinese characteristics in the new era for human quality, it can be found that the basic requirements are to improve human culture, health, and artistic literacy. At the same time, the most important thing in educational reform is to strengthen the training of knowledge-based, innovative, and skilled workers, And regard their training objectives as the first task of educational reform. Yang Liping and Xin Tao (2021) believe that in the artificial intelligence environment, the large-scale hybrid educational form of combining online and offline learning forces the paradigm of education evaluation to evolve from "promoting learning through evaluation" to "integrating learning evaluation".

The third is to promote the strategy of digital transformation of education driven by artificial intelligence. Tang Yuxi and He Weiguang (2020) believe that in order to break through the dilemma of teachers in the intelligent era, it is necessary to standardize the development of intelligent education to build a good education ecology, cultivate good teacher ethics to highlight the professional essence, enhance professional literacy to refine a new type of intelligent teacher, attach importance to human-machine harmony to avoid technical and ethical risks, and innovate education paradigms to empower students to master technology and adults. Shen Wei (2019) proposed that in terms of future school functions, it will focus on precision education, precision positioning, and precision services. Schools should not regard entering a higher school and obtaining a stable job for students as their main tasks. In the era of artificial intelligence, school education should strengthen lifelong learning and development ability cultivation for people. The most prominent feature of education in the intelligent era is the "humanistic spirit" based education method. Li Shijin et al. (2022) believe that in order to enhance the adaptability of artificial

intelligence learning, learners should manage from such aspects as technical anxiety, emotional intelligence, intelligent soft knowledge, and human-computer collaboration. Zhi Yuan (2018) believes that the construction of high-quality learning spaces requires starting with design, strengthening technological penetration, reconstructing spatial culture, and shaping the inner spirit of the space in practical operations. Zhu Zhiting (2018) proposed in his research on education methods in the intelligent era that a targeted and comprehensive teaching evaluation system can be developed, combined with all learning data of students, to effectively guide students to develop their own advantages. Shi Yaojiang (2021) and Chen Xiangmei (2022) believe that the development of AI enabled education should be promoted in terms of building an educational data security governance system that is compatible with the algorithmic era and establishing a human-computer collaborative relationship that enables people and technology to collaborate in a two-way manner.

8. Research on the quality management of talent cultivation in private universities

8.1 Overview of relevant research abroad

(1) Research status of talent cultivation

Edward F. Crawlcy, Johan Malmqvust (2010) proposed CDIO (Concept, Design, Implementation, Operate) for talent cultivation, implemented innovation in college education and teaching, and proposed a new school-enterprise cooperation model to promote professional training of talents in enterprise production during the talent cultivation process, so as to meet the needs of enterprise talents.

Chris Eames, Richard K. Coll (2010) proposed the importance of work-study alternation in engineering education, which means implementing two stages of collaborative training in classroom learning and enterprise work during the talent

cultivation process. Learning is divided into two stages, namely, a theoretical semester and a working semester.

Stiwne and Jungert (2010) proposed that in talent cultivation, it is necessary to strengthen the cultivation of practical qualities such as talent's problem-solving ability, project management ability, and time management ability through extracurricular and enterprise training, so as to guide talents to effectively master the skills required for timely work.

Patricia D. Galloway (2008) proposed that in the process of engineering technology development, it is necessary to recognize the importance of cultivating talents' global awareness and engineering ethics, as well as their theory and skills.

Paul Penfield, Jr. (1993) took the cultivation of engineering master's degrees for MIT students as the research object during the research process. In order to improve the quality of practical ability cultivation for engineering students, the most important thing is to guide students to participate in long-term and systematic training work.

(2) Quality Management of Higher Education

Holm T, Vuorisalo T (2015) conducted a survey and analysis of 11 universities in Nordic countries to explore measures to achieve sustainable development of higher education in quality assurance processes and procedures such as management systems, in order to summarize the factors that affect sustainable development and the success of management systems. Management systems can help improve the quality of higher education, thereby promoting the sustainable development of higher education.

Roger Brown (2004) proposed that in order to achieve environmental management such as quality control, audit, and evaluation of higher education, the UK has enacted laws specifically, thereby establishing a diversified education quality management system.

Sahney S, BanwetDW (2004) proposed that in Western higher education quality management, corresponding evaluation activities should be constructed under the guidance of total quality management theory to maximize social recognition and support, effectively implement higher education quality objectives, provide protection for the implementation of related activities, and improve the quality of activities.

Louise Morley (2003) proposed that quality management in the field of higher education is no longer simply a tool for checking product quality after the fact, but rather one of the tools for implementing specifications for the entire production process.

Segers M, Dochy F (1996) proposed that the advantages possessed by Western institutions of higher learning are university autonomy and academic freedom, which can help promote the participation of social forces such as social organizations and groups in educational decision-making and quality assurance within the school, thereby effectively constructing a pluralistic and participatory education quality management and supervision guarantee system.

G. Harmen (1996) proposed that in the quality management of higher education

in the United States, the feedback results of unofficial quality evaluation agencies are also an important reference factor for government decision-making, and have an indirect impact on the quality management of higher education.

8.2 Overview of relevant research in Chin

(1) Research on the quality of talent cultivation

Ni Xiaoqing (2016) explored the impact of improving students' abilities, satisfaction with campus relationships, students' learning engagement, campus hardware slowness, and satisfaction with teaching software on the quality of talent cultivation, and proposed that it has an important impact.

After investigation and analysis, Chen Yaling and Wang Li (2015) proposed that the Excellent Engineer Program has achieved significant results in both research-oriented learning and teacher team construction. It has the most significant impact on students' satisfaction with engineering talent cultivation models, but its effect is not significant in practical teaching reform.

Zhao Peihua and Hu Bo (2013) proposed that in the process of evaluating the quality of talent cultivation, the application of diversified evaluation subjects can be increased, and multiple interactive evaluations can be implemented among quality evaluation groups.

Shi Huamin (2013) proposed that in the process of talent cultivation, the most important thing is to meet the needs of employers. Therefore, based on the needs of enterprises in terms of students' moral level, knowledge, and ability structure, the construction of a first level indicator for evaluating the quality of talent cultivation can be completed, and a second level indicator can be established.

Zhang Yunxia (2012) proposed the construction of quality evaluation indicators for talent cultivation, which requires increasing attention to satisfaction indicators for graduates and employers.

Ni Lijuan (2007) proposed that in the construction of evaluation indicators for talent cultivation quality, school positioning, teaching work, teaching methods and evaluation, and practical teaching all have important impacts on the quality of talent cultivation. Therefore, the construction of evaluation indicators can be completed based on the above five factors.

(2) Research on Quality Management of Talent Cultivation

Lin Yuanzhang and Liang Liming (2017) proposed that under the Excellent Engineer Program, the management of talent cultivation quality must follow the laws of talent cultivation management in general higher education, and at the same time, it should be combined with the program objectives and their characteristics to

construct a talent cultivation quality management system, mainly including relevant links such as goals, wisdom, feedback and regulation, Construct a complete quality management cycle system for talent cultivation and quality management.

Xu Xiaozhou and Xin Yueyou (2016) proposed in their research on the quality management of engineering education in Canada that the evaluation focuses on the quality of graduates, teaching facilities, teacher level, and course content.

Zhang Shihai and Yan Bing (2014) proposed that under the application of comprehensive quality management theory, the entire process, all-round, and all staff quality management should be implemented for talent cultivation quality, in order to construct a management system under the application of diversified quality management methods.

Yuan Li (2013) proposed the need to implement control measures in relevant aspects such as talent cultivation quality objectives, decision-making and command, and quality monitoring, in order to improve management effectiveness, based on the analysis of the necessity of applying comprehensive quality management in talent cultivation in vocational colleges, .

Zhang Anfu and Liu Xingfeng (2010) proposed after a comparative study on the quality management methods of excellent engineering talent cultivation that it is necessary to start from the aspects of student sources, teaching methods and evaluation, teachers, courses, and policy support. At the same time, it is also necessary to effectively play the role of the government, society, and universities in talent cultivation quality management.

To sum up, first of all, through literature research and policy analysis, summarize the existing research shortcomings and summarize core perspectives, clarify key concepts, reveal the current situation and weaknesses of the construction of the quality management system for private higher education in Guangxi, and propose research issues and assumptions. Secondly, through theoretical research and

field research, analyze and reveal the internal logical structure, operating mechanism, and construction mechanism of the quality management system of Guangxi private higher education under artificial intelligence, and construct a theoretical analysis framework. Thirdly, through questionnaire survey and empirical analysis, Paul's data analysis and multiple linear regression were used to evaluate the performance and influencing factors of the construction of the quality management system for private higher education in Guangxi. Finally, through experience summary and path design, drawing on advanced experience, and based on research conclusions, this paper proposes a multi-dimensional path and implementation countermeasures for building a quality management system for private higher education in Guangxi using artificial intelligence.

Therefore, first, from the perspective of artificial intelligence development, in-depth exploration of the multi-dimensional construction path and implementation mechanism guarantee of the quality management system of Guangxi private higher education has certain innovation in the research object compared with existing research results. Secondly, taking the quality management system of private higher education as the research object, compared with existing research focusing on public institutions of higher learning, has certain innovation in the research object. Thirdly, focus on analyzing the role and operational mechanism of artificial intelligence in the construction of the quality management system of Guangxi private higher education, as well as quantitatively evaluating the performance and influencing factors of the construction of the quality management mechanism of Guangxi private higher education, to achieve innovation in research content.

Chapter 3

Research Methodology

In order to study the strategies for improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi, a variety of research methods are adopted in this paper. This research includes the following aspects: 1) To study the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi; 2) To study strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi. 3) To evaluate the feasibility of the strategies of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi. The researcher has the following procedures:

1. The population / the sample Group
2. Research Instruments
3. Data Collection
4. Data Analysis

The population / Sample Group

The Population

Population are 193122 full-time university students and 7925 full-time teachers from 11 private universities in Guangxi. These people are all participants who are mainly involved in improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

The Sample Group

Sample Groups are 621 full-time university students and 12 full-time teachers from 3 private universities in Guangxi, which are selected by using the method of random sampling in accordance with Taro Yamame sampling tables. (These 3 universities are Nanning University, Guangxi University of Foreign Languages, and Guilin University, with a total of 63127 full-time university students and 2635 full-time teachers).

Interview Group

There are 12 interviewees, who are full-time teachers including middle-level administators from 3 universities (Nanning University, Guangxi University of Foreign Languages, and Guilin University). A simple random sampling method was used to select interview respondents and these individuals must have worked at a private university in Guangxi for more than 5 years.

Evaluation Team

There are 5 experts, including experts and scholars studying higher education in Guangxi private universities, and representatives of middle level administators and teachers working in Guangxi private universities, who were invited to evaluate the valid and feasibility of the feasibility of the strategies of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Research Methods and Steps

This study has adopted multiple methods to collect and analyze data. In an effort to test and determine the correctness of the data, the data in this study include both quantitative and qualitative data. A questionnaire survey on the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi was designed to investigate senior graduates from three private universities in Guangxi. Semi-structured interviews were conducted with full-time teachers from 3 private universities on improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi. According to different types of universities, each university selects 4 teachers, with a total of 12 teachers, to conduct interviews. The strategies of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi was proposed, and five experts were invited to evaluate the feasibility of the implementation of the strategies. This study is divided into four steps, as follows:

Step1: set the research ideas

A theoretical foundation was laid to develop this study by reading a good many of literature review from inside and outside, learning about the researches on total quality management theory and Constructism Theory. Based on the knowledge of the level of quality management of talent cultivation through artificial intelligence according to related theoretical basis, the strategies of improving quality management of talent cultivation through artificial intelligence in private university in Guangxi were proposed, and research plans were formulated.

Research ideas. 1) A questionnaire was designed in basis of 8 variables, including AI education environment, teaching and learning process support, education evaluation, and management and service, and quality objectives, quality assurance, quality evaluation, quality improvement of talent cultivation. In addition, a structured interview outline was designed according to the results of the

questionnaire; 2) From results of questionnaire and interview, this study analyze the level and problems of quality management of talent cultivation through artificial intelligence in private universities in Guangxi; 3) This study carried out strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi; 4) Experts were invited to evaluate the feasibility of the strategies.

Step2: design and distribute the questionnaires

A questionnaire is made to research the level of quality management of talent cultivation through artificial intelligence in private universities inGuangxi. These questionnaires were conducted among senior graduates of the same discipline categories (economics, finance, electronic information, art and design, business management, transportation, language and literature) from the three universities. The results of questionnaire were analyzed by factor analysis to get the Validity and feasibility of the data.

Step3: Design the interview outline

To obtain more real problems and formulate strategies of improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi, this study adopted a structured interview outline including the questions in 4 aspects, that is, AI education environment, AI teaching and learning process support, AI education evaluation, and AI management and service. By using the content analysis method, this study summarizes the strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Step4: Evaluate the feasibility of the strategy

It is necessary to invite 5 experts, including leaders of the Guangxi education department, experts and scholars studying higher education in private universities in Guangxi, as well as representatives of middle level managers and teachers to

evaluate the strategies of improving quality management of talent cultivation through artificial intelligence. The evaluation results will provide a strategic basis for optimizing the quality management of talent cultivation in private universities.

The summary of research steps are shown in the figure 3.1:

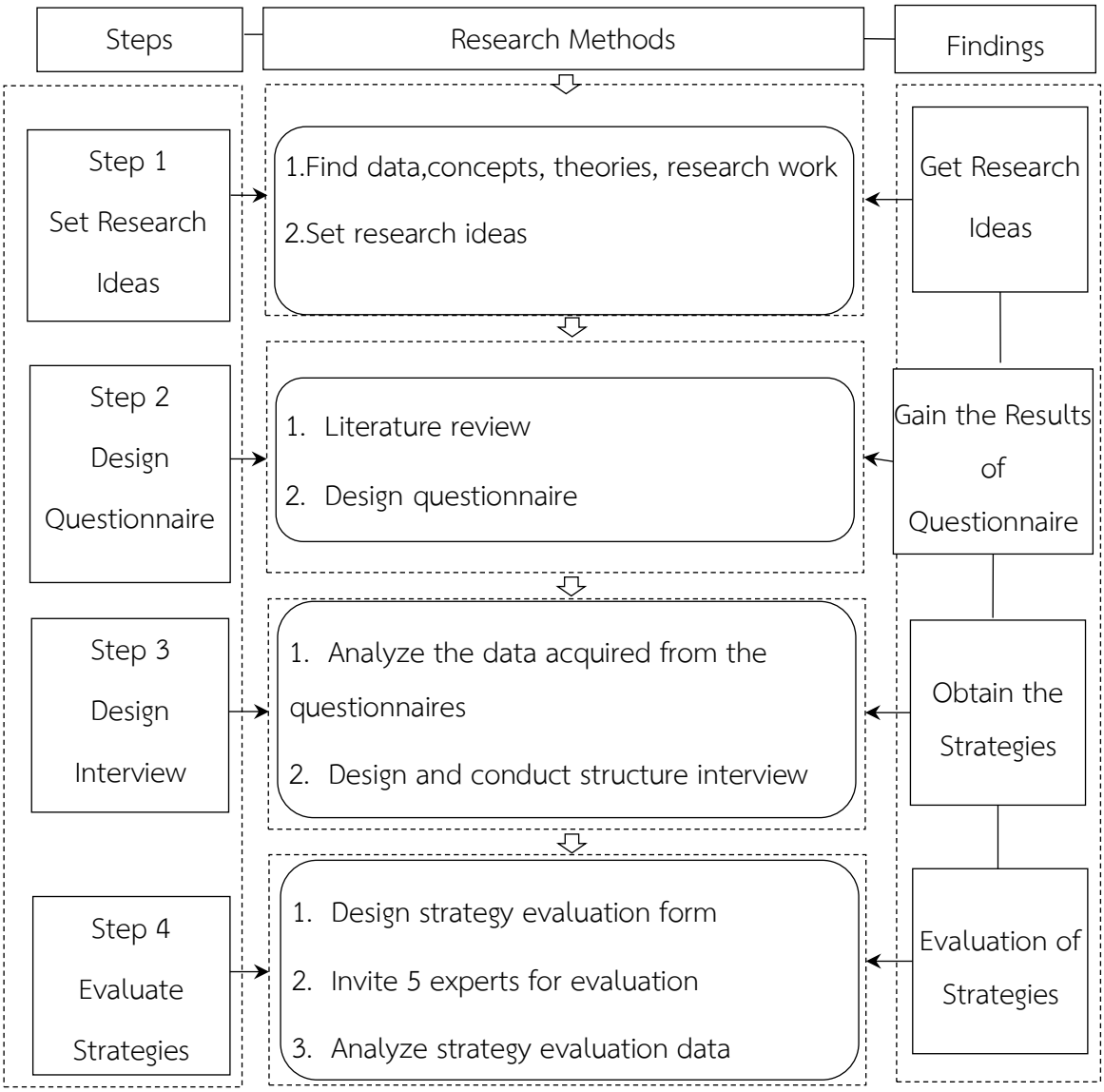


Figure 3.1: Research Steps

Research Instruments

The research instruments were used in this study, including a questionnaire, an interview form, and a evaluation form of strategy feasibility.

Design Research Instruments

1. Questionnaire

Part 1: The basic information of the questionnaire respondents, including gender, ethnicity, age, subject category, parents' education level, family location, employment direction, understanding of the application of artificial intelligence in the university, and AI technologies they know.

Part 2: The questionnaire on the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi is carried out by using the Likert 5-level scale. The respondents are required to fill in the form according to the actual situation of quality management of talent cultivation through artificial intelligence in private universities in Guangxi. The evaluation criteria are 1= lowest, 2= low, 3= medium, 4= high, 5=highest. The contents and questions are sorted by artificial intelligence (including artificial intelligence education environment, artificial intelligence teaching and learning process support, artificial intelligence education evaluation, and education intelligent management and service) and quality management (including quality objectives of talent cultivation, quality assurance of talent cultivation, quality evaluation of talent cultivation, quality improvement of talent cultivation and quality management of talent cultivation).

2. Interview

Based on the data attained and analyzed from the questionnaire survey, the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi was summarized, and then the interview outline was designed to formulate a semi-structured interview form for qualified respondents.

3. Evaluation

On the basis of questionnaire and interview results, strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi are proposed in this study, and an evaluation form of strategy implementation is designed. Besides, experts are sent an invitation to evaluate the adaptability and feasibility of strategy implementation

Check the Quality of Research Instruments

1. Questionnaire

For testing the validity of the questionnaire, namely quality of questions, the questionnaire are submitted to 5 experts, who define appropriate and inappropriate operations and provide suggestions for the improvement of questionnaire, given that consistency and appropriateness of all questions. By calculating the corresponding index (the index of Item Objective Congruence: IOC) and operation definition for every question, experts are able to correctly evaluate the questionnaire. It is found that the index of each question is 1. After checking, it can be concluded that each question in the questionnaire is designed to be consistent with the operational definition, and the questionnaire has been optimized based on expert recommendations.

This study used SPSS25.0 to test the feasibility and validity of the questionnaire, and it can be known that the Cronbach coefficients of this study are all higher than 0.9, with good feasibility. It can be concluded that the feasibility of the questionnaire is relatively high and consistent. In this study, the questionnaire is divided into eight dimensions: including 1. artificial intelligence education environment (with a total of 5 measurement items), 2. artificial intelligence teaching and learning process support (with 6 items), 3. artificial intelligence education evaluation (with 5 items), 4. artificial intelligence management and service (with 5 items), 5. quality objective of talent cultivation (with 5 items), quality

assurance of talent cultivation (with 8 items). quality evaluation of talent cultivation (with 6 items), and quality improvement of talent cultivation (with 7 items). Moreover, the Clonbach coefficients for 8 variables are all higher than 0.9, indicating that the internal consistency of the measurement is high. In this study, the KMO value of the formal scale is 0.939, which is higher than the threshold level of 0.6. Exploratory factor analysis can be performed.

2. Interview

After acquiring the data analysis results from the questionnaire to know the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi, the researcher designed interview questions, from which main content is how to fully utilize artificial intelligence to improve the quality of talent cultivation, and suggestions for improvement. The interview questionnaire includes 4 aspects, including artificial intelligence education environment, artificial intelligence teaching and learning process support, artificial intelligence education evaluation and artificial intelligence management and service.

3. Evaluation

The researcher invited a total of 5 people, including leaders who formulated management policies for Guangxi private universities, experts and scholars who studied the management of Guangxi private universities, and teachers who worked in Guangxi private universities, to evaluate the adaptability and feasibility of implementing the strategy. They used the form with 5-level scoring standard, which divided into: highest, high, average, low and lowest. All evaluator could only choose one level for each question.

Data Collection

The researcher collected data based on the type and steps of research instruments, as follows:

Questionnaire

1. Design Questionnaire: the researcher designed a questionnaire on the basis of the previous research objectives, and then submitted it to the graduate school of university after obtaining the advisors' modification and approval.

2. Distribute questionnaires: the researcher distributed the questionnaires to respondents of 3 different private universities in Guangxi from September 1 to September 10, 2022, and respondents are required to provide valid questionnaires.

3. Follow-up questionnaires: the researcher followed up the collection and sample size of the questionnaires, and stop collect when the samples reach the required level, so as to proceed to the next step of data analysis.

4. Sort out questionnaire data: the researcher sorted out the data of collected questionnaires, checked the completeness and validity of the questionnaire, and use SPSS.25 to analyze completed and valid data.

Interview

1. Summarize the analysis results of questionnaires on the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi, and an interview outline needs to be formulated.

2. Set up the qualifications of interviewees. Participants in semi-structured interviews are full-time teachers including middle-level administrators from 3 universities (Nanning University, Guangxi University of Foreign Languages, and Guilin University). Four interviewees are selected from a university, a total of 12, and these individuals must have worked at a private university in Guangxi for more than 5 years.

3. Invite interviewees. The researcher set an invitation to interviewees and two parties discussed the time, location, and method of the interview.

4. Conduct interviews. The researcher conducted interviews with 12 interviewees according to the interview outline, and the interview time was controlled within 30 minutes

5. Collate interview information. After the interview, collate and analyze the relevant information of 12 interviewees.

Evaluation

1. Design an evaluation form and check its Validity, and feasibility.
2. Invite experts to conduct strategy evaluation
3. After the evaluation, the relavant information were analyzed.

Data Analysis

Questionnaire

The researcher firstly examined the reliability and validity of the questionnaire according to the research objectives, questions, and framework. Then, incompleted questionnaires should be deleted. Subsequently, the data analysis is divided into two parts, namely, preliminary analysis and in-depth analysis.

1. Preliminary analysis

Preliminary analysis of questionnaire: Analyze the data characteristics of various research variables, including preliminary data analysis and basic statistical analysis by using SPSS25. Preliminary data analysis is to analyze the basic information of the questionnaire respondents, including gender, ethnicity, age, subject category, parents' education level, family location, employment direction, understanding of the application of artificial intelligence in the university, and AI technologies they know, etc. Furthermore, the percentage and frequency be calculated.

2. In-depth analysis of questionnaire: In order to achieve the objectives of the study, the average value and standard deviation of variables were calculated and analyzed according to relevant theories.

Interview

The Interviewees are 12 full-time teachers including ordinary teachers and middle level administrators from Guangxi private universities, (Nanning University,

Guangxi University of Foreign Languages, and Guilin University). Interviewees are required to have worked in private universities in Guangxi for at least 5 years to know the level of artificial intelligence in private universities and the existing problems in quality management of talent cultivation, and propose strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi, which are calculated by content analysis.

Evaluation

The researcher conducted Validity and feasibility analysis on the evaluation content and data, and calculated the average of actual Validity and feasibility by using the statistical data (including average value $\overline{X}$ and standard deviation SD) of data analysis to obtain an acceptable high degree of probability.

Statistics for Data Analysis

1. Use frequency and percentage to analyze the basic information of the strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

2. Use mean and standard deviation to analyze the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

3. Use content analysis to evaluate the strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

4. Use mean and standard deviation to evaluate the feasibility of the strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Data Interpretation

In the mean value analysis of the strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi, the researchers defined the criteria for data interpretation.

As follows:

4.51-5.00	Refer to	highest level
3.51-4.50	Refer to	high level
2.51-3.50	Refer to	medium level
1.51-2.50	Refer to	lower level
1.00-1.50	Refer to	lowest level

After evaluating the feasibility of the strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi, the researchers defined criteria for data interpretation.

As follows:

4.51-5.00	Refer to	highest level
3.51-4.50	Refer to	high level
2.51-3.50	Refer to	medium level
1.51-2.50	Refer to	lower level
1.00-1.50	Refer to	lowest level

Chapter 4

Results of Analysis

According to the research objectives of strategies for improving Quality Management of Talent Cultivation through artificial intelligence in private universities, it is required to study the level of Quality Management of Talent Cultivation through artificial intelligence in private universities, formulate the strategies to improve quality management of talent cultivation through artificial intelligence in private universities, and evaluate the feasibility of this strategy in Guangxi's private universities. The researchers set questionnaires to a sample group of 621 students from 3 different private universities in Guangxi. By studying these relevant strategies, we can provide service for the rapid development of higher education and solve many difficulties faced by higher education. Based on this, the researcher presented research results on the following topics:

Part1: The basic information of the questionnaire respondents, including gender, ethnicity, age, subject category, parents' education level, family location, employment direction, understanding of the application of artificial intelligence in the university, and AI technologies they know.

Part2: Analysis results of the questionnaires on the level of Quality Management of Talent Cultivation through artificial intelligence in private universities.

Part3: Implementation and analysis results of strategies for improving Quality Management of Talent Cultivation through artificial intelligence in private universities.

Part4: Feasibility evaluation results of the implementation of strategies for improving Quality Management of Talent Cultivation through artificial intelligence in private universities.

Part 1 The basic information of the questionnaire respondents, including gender, nationality, age, discipline category, educational background of parents, home location, employment direction, understanding of the application of AI in the university. As shown in the following table:

Table 4.1 Basic information (n = 621)

	Basic information	Num	Percent (%)
Gender	Male	211	34.00
	Female	410	66.00
	Total	**621**	**100.0**
Nationality	Han	415	66.83
	National minority	206	33.17
	Total	**621**	**100.0**
Age	18 years old and under	8	1.29
	19-20 years old	30	4.83
	21-22 years old	441	71.01
	over 22 years old	142	22.87
	Total	**621**	**100.0**
Discipline Category	Economics	119	19.16
	Finance	29	4.67
	Electronic Information	17	2.74
	Art Design	115	18.52
	Business Administration	218	35.10
	Transportation	36	5.80
	Language and Literature	66	10.63
	Others	21	3.38
	Total	**621**	**100.0**

	Basic information	Num	Percent (%)
Educational background of parents	Primary school	208	33.49
	Middle-school	248	39.94
	High-school	86	13.85
	Junior College	27	4.35
	University’s degree	49	7.89
	Graduate’s degree	3	0.48
	Doctor's degree	0	0.00
	Total	**621**	**100.0**
Home location	City	117	18.84
	County	77	12.40
	Village	427	68.76
	Total	**621**	**100.00**
Employment direction	Related to major	482	77.62
	Not related to major	139	22.38
	Total	**621**	**100.00**
Understanding of the application of AI in one's university.	Very familiar	33	5.31
	Basic understanding	169	27.22
	Uncertain	181	29.15
	Not very familiar	197	31.72
	Completely unknown	41	6.60
	Total	**621**	**100.00**

From Table 4.1, it can be seen that the proportion of male population in the gender composition of the surveyed group is relatively high, at 66%. In the ethnic distribution composition of the surveyed group, the proportion of Han people is relatively high, with a proportion level of 66.83%. The age structure of the surveyed group is composed of four age stages, with the 21-22 age group accounting for 71% of the total. According to the distribution of the subject categories of the surveyed respondents, the proportion of students majoring in business administration is the

highest, with a proportion level of 35.10%. According to the analysis of the educational background of the parents of the surveyed students, the group with the highest proportion of parents with a junior high school education level is 39.94%. From the analysis of the family location of the surveyed students, it can be seen that approximately 68.76% of the population live mainly in rural areas. According to feedback on students' employment directions, approximately 77.62% of students' employment directions are closely related to their respective majors. For the general understanding of artificial intelligence, 67.47% of students have insufficient understanding of the essence of artificial intelligence.

Table 4.2 Knowledge about AI technology (n = 621)

What's kind of AI technologies do you know	Frequency	Percent of responses (%)	Percent of cases (%)
Big Data	562	15.28	90.5
Expert System	298	8.10	47.9
Cloud Computing	488	13.27	78.5
Internet of Things	513	13.95	82.6
Deep Learning	257	6.99	41.3
Speech Recognition	391	10.63	62.9
Image Recognition	389	10.58	62.6
Character Recognition	377	10.25	60.7
Human-Computer	296	8.05	47.6
Other	107	2.91	17.2

In this study, students' perceptions of the fields involved in AI were investigated through a multiple-response analysis. The results of the study show that there are statistical differences in students' perceptions of the fields involved in AI, and the percent of the response to "big data" is 15.28%, followed by "Internet of things" with a percent of the response of 13.95% and "cloud computing" with a percent of the response of 13.27%, which indicates that university students mainly

know about big data, cloud computing and Internet of things. As for "human-computer interaction", "deep learning" and "expert system", the percentage of the response of students is low, which indicates that "human-computer interaction", "deep learning" and "expert system" are unfamiliar to most students compared with "big data, cloud computing and Internet of things".

Part II Questionnaire Analysis Results of the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Feasibility and validity analysis of research variables

In accordance with the results of questionnaires, this study analyzed the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi from eight aspects: including 1) artificial intelligence education environment, 2). artificial intelligence teaching and learning process support, 3). artificial intelligence education evaluation, 4) artificial intelligence management and service, 5) quality objective of talent cultivation, 6) quality assurance of talent cultivation. 7) quality evaluation of talent cultivation, and 8) quality improvement of talent cultivation. The average value and standard deviation were attained. Meanwhile, explorary factor analysis was used to test the feasibility and validity of all variables. From analysis of factors, all variables in the questionnaire are relavant.

Table 4.3 Analysis on the strategies for improving the quality management of talent cultivation through AI in private universities in Guangxi.

strategies for improving the quality management of talent cultivation through AI in private universities in Guangxi.	$\overline{X}$	SD	Level	Rank
1 AI for education environment	3.35	1.02	medium	7
2 AI for teaching and learning process support	3.40	0.98	medium	5
3 AI for education evaluation	3.42	1.02	medium	4
4 AI for management and service	3.43	0.96	medium	3
5 Quality objectives of talent cultivation	3.47	0.98	medium	2
6 Quality assurance of talent cultivation	3.49	0.96	medium	1
7 Quality evaluation of talent cultivation	3.38	0.97	medium	6
8 Quality improvement of talent cultivation	3.32	0.94	medium	8
Total	3.41	0.98	medium	

According to Table 4.3, the average level of 8 aspects of strategies for improving the quality management of talent cultivation through AI in private universities in Guangxi is medium ($\overline{X}$=3.41). The average level of quality assurance of talent cultivation is the highest ($\overline{X}$=3.49), followed by the average level of quality objectives of talent cultivation($\overline{X}$=3.47), the average level of AI management and service ($\overline{X}$=3.43), the average level of AI education evaluation ($\overline{X}$=3.42), the average level of AI teaching and learning process support ($\overline{X}$=3.40), the average level of evaluation of talent cultivation ($\overline{X}$=3.38), the average level of AI education environment($\overline{X}$=3.35), and quality improvement of talent cultivation($\overline{X}$=3.32). The four indicators of artificial intelligence are all at the medium level, higher than the four indicators of quality management of talent cultivation, indicating that in terms of the current level of performance of artificial intelligence education, quality

management of talent cultivation through AI in private universities in Guangxi needs to be further strengthened.

Analysis of the level of research variables

This study mainly uses mean values and standard deviations to analyze the status of various variables.

Table 4.4 Analysis of AI for education environment

	AI for education environment	$\overline{X}$	SD	Level	Rank
1	Enjoy a wireless intelligent campus environment	3.40	1.15	medium	2
2	Get intelligent classrooms for individualized learning guidance	3.28	1.10	medium	4
3	Get an intelligent library for efficient and convenient services	3.37	1.15	medium	3
4	Have intelligent access control devices applied to campus security prevention and early warning	3.48	1.16	medium	1
5	Enjoy the convenient living environment provided by the intelligent restaurant	3.24	1.20	medium	5
	Total	3.35	1.15	medium	

According to Table 4.4, the average level of AI education environment is 3.35, which belongs to the medium level, indicating that AI education environment of private universities in Guangxi still need to be improved further. The highest average level is “Have intelligent access control devices applied to campus security prevention and early warning” ($\overline{X}$=3.48), and the lowest average level is “Enjoy the convenient living environment provided by the intelligent restaurant” ($\overline{X}$=3.24).

Table 4.5 Analysis of AI for teaching and learning process support

	AI for teaching and learning process support	$\overline{X}$	SD	Level	Rank
1	Access to high-quality learning resources using various intelligent teaching platforms	3.44	1.08	medium	2
2	Able to learn in a virtual environment	3.36	1.12	medium	5

	AI for teaching and learning process support	$\overline{X}$	SD	Level	Rank
3	Have an intelligent robot learning partner	3.33	1.16	medium	6
4	Participate in intelligent courses for interactive learning	3.39	1.12	medium	3
5	Take intelligent online exams and assign intelligent online tasks	3.48	1.12	medium	1
6	Participate in AI education-related activities organized by the university	3.38	1.12	medium	4
	Total	3.40	1.12	medium	

According to Table 4.5, the average level of AI teaching and learning process support is medium level ($\overline{X}$=3.40), indicating that AI teaching and learning process support of private universities in Guangxi still needs to be improved. The highest average level belongs to “Take intelligent online exams and assign intelligent online tasks” ($\overline{X}$=3.48) and the second highest level belongs to “Access to high-quality learning resources using various intelligent teaching platforms” ($\overline{X}$=3.44), while the lowest average level is “Have an intelligent robot learning partner” ($\overline{X}$=3.33).

Table 4.6 Analysis of AI for education evaluation

	AI for education evaluation	$\overline{X}$	SD	Level	Rank
1	Access to intelligent classroom evaluation	3.48	1.13	medium	1
2	Access to intelligent scoring and intelligent analysis of learning	3.43	1.15	medium	3
3	Access to automatic oral evaluation	3.45	1.13	medium	2
4	Access to intelligent monitoring and warning of mental health	3.39	1.15	medium	4
5	Access to intelligent growth diagnosis and recommendation	3.34	1.16	medium	5
	Total	3.42	1.14	medium	

According to Table 4.6, the average level of AI education evaluation is at medium level ($\overline{X}$=3.42), indicating that AI education evaluation of private universities in Guangxi should get further improvement. Among them, the highest level is "Access to intelligent classroom evaluation" ($\overline{X}$=3.48), which belongs to medium level. And the lowest average level is "Access to intelligent growth diagnosis and recommendation" ($\overline{X}$=3.34).

Table 4.7 Analysis of AI for management and service

	AI for management and service	$\overline{X}$	SD	Level	Rank
1	Use intelligent school management system	3.48	1.13	medium	2
2	Access to intelligent data collection and management	3.45	1.09	medium	3
3	Use AI teaching management assistant	3.52	1.08	high	1
4	Access to customized education services	3.35	1.13	medium	4
5	Use intelligent campus doctor assistant	3.33	1.14	medium	5
	Total	3.43	1.11	medium	

According to Table 4.7, the average level of AI management and service is at medium level ($\overline{X}$=3.43), indicating that AI management and service of private universities in Guangxi should be further improved. The highest level is "Use AI teaching management assistant" ($\overline{X}$=3.52), which belongs to medium level. And the lowest average level is "Use intelligent campus doctor assistant" ($\overline{X}$=3.33).

Table 4.8 Analysis of quality objectives of talent cultivation

	Quality objectives of talent cultivation	$\overline{X}$	SD	Level	Rank
1	Have a strong sense of social responsibility	3.61	1.11	high	1
2	Have a high level of professional skills	3.39	1.10	medium	5
3	Have a good physical fitness	3.49	1.09	medium	2
4	Able to appreciate and create beauty	3.40	1.12	medium	4
5	Have good social practice ability	3.46	1.08	medium	3
	Total	3.47	1.10	medium	

According to Table 4.8, the average level of quality objectives of talent cultivation is at medium level ($\overline{X}$=3.47), indicating that quality objectives of talent cultivation of private universities in Guangxi need improvement. “Have a strong sense of social responsibility” ($\overline{X}$=3.61) is at highest level. And the lowest average level is 3.39, which belongs to “Have a high level of professional skills”.

Table 4.9 Analysis of quality assurance of talent cultivation

	Quality assurance of talent cultivation	$\overline{X}$	SD	Level	Rank
1	Make full use of teaching resources to learn relevant knowledge	3.46	1.09	medium	6
2	Take various skill level certificate examinations	3.47	1.11	medium	5
3	Actively participate in various professional competitions	3.46	1.09	medium	6
4	Actively participate in various social practice activities	3.60	1.08	high	1
5	Actively participate in various training and lectures	3.48	1.11	medium	4
6	Actively discuss the subject with teachers	3.44	1.07	medium	8
7	Have strict classroom attendance management	3.53	1.11	high	2
8	Have strict rules and regulations for teaching	3.49	1.12	medium	3
	Total	3.49	1.10	medium	

According to Table 4.9, the average level of quality assurance of talent cultivation is at medium level ($\overline{X}$=3.49), indicating that quality assurance of talent cultivation of private universities in Guangxi still need to be improved. The highest average level is “Actively participate in various social practice activities” ($\overline{X}$=3.60), which belongs to high level. And the lowest average level is “Actively discuss the subject with teachers”, at medium level ($\overline{X}$=3.44).

Table 4.10 Analysis of quality evaluation of talent cultivation

	Quality evaluation of talent cultivation	$\overline{X}$	SD	Level	Rank
1	Have a clear self-awareness	3.45	1.04	medium	1
2	Conduct a self-summary and reflection at the end of the semester	3.42	1.05	medium	3
3	Have an objective and correct evaluation of teachers' teaching level	3.43	1.10	medium	2
4	Fair and objective teacher evaluation	3.32	1.08	medium	5
5	Have an excellent teaching evaluation system in university	3.35	1.10	medium	4
6	Obtain social feedback from employers	3.31	1.12	medium	6
	Total	3.38	1.08	medium	

According to Table 4.10, the average level of quality evaluation of talent cultivation is at medium level ($\overline{X}$=3.38), indicating that quality evaluation of talent cultivation of private universities in Guangxi is at a medium level, and should be improved better. “Have a clear self-awareness” ($\overline{X}$=3.45) is at highest average level. And the lowest average level is “Obtain social feedback from employers” ($\overline{X}$=3.31).

Table 4.11 Analysis of quality improvement of talent cultivation

	Quality improvement of talent cultivation	$\overline{X}$	SD	Level	Rank
1	Update regularly its advanced campus infrastructure	3.29	1.08	medium	5
2	Access to cutting-edge educational and teaching facilities	3.21	1.09	medium	7
3	Emphasize on active learning and individualized learning	3.33	1.05	medium	3
4	Access to innovative teaching methods frequently and	3.31	1.09	medium	4
5	Obtain more opportunities for social practice activities	3.53	1.09	high	1
6	Participate in cross-disciplinary extracurricular activities actively	3.34	1.07	medium	2

	Quality improvement of talent cultivation	$\overline{X}$	SD	Level	Rank
7	actively improve research awareness and research level actively	3.23	1.08	medium	6
	Total	3.32	1.08	medium	

According to Table 4.11, the average level of quality improvement of talent cultivation is at medium level ($\overline{X}$=3.32), indicating that the quality improvement of talent cultivation in private universities in Guangxi is required to be promoted. The highest average level is “Obtain more opportunities for social practice activities” ($\overline{X}$=3.53), which belongs to high level. Otherwise, the lowest average level is “actively improve research awareness and research level actively” ($\overline{X}$=3.23).

Interview Analysis Results of Strategies for Improving Quality Management of Talent Cultivation Through Artificial Intelligence in Private Universities

This study presents the information provided by the interviewees through structured interviews. a random sampling method was used to select administrators and full-time teachers from 3 universities, including Nanning University, Guangxi University of Foreign Languages, and Guilin University. Each university has 4 people, a total of 12 people, and it is required to have worked at a private university in Guangxi for more than 5 years.

The list of respondents is as follows:

Table 4.12 Interviewees Information

No.	Interviewee	Category	Working Experience	University
1	Mrs.Wang	Middle Manager	12	Nanning University
2	Mr.Liu	Middle Manager	15	Nanning University
3	Mr.Li	Full-Time Teacher	10	Nanning University
4	Mr.Cao	Full-Time Teacher	8	Nanning University
5	Mrs.Lu	Middle Manager	8	Guangxi University of Foreign Languages
6	Mrs.Su	Middle Manager	11	Guangxi University of Foreign Languages
7	Mr.Huang	Full-Time Teacher	7	Guangxi University of Foreign Languages
8	Mr.Bao	Middle Manager	10	Guangxi University of Foreign Languages
9	Mr.Ma	Middle Manager	13	Guilin University
10	Mr.Jiang	Middle Manager	7	Guilin University
11	Mrs.Han	Full-Time Teacher	5	Guilin University
12	Mrs.Chen	Middle Manager	9	Guilin University

The interview is as follows:

Interviewee 1:

1. How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Use interactive whiteboards: Interactive whiteboards allow teachers to present and share multimedia content, annotate over images, and access the internet in real-time. Teachers can also use them to write and draw, making the classroom more interactive and engaging for students.

2. How to use intelligent technologies to ensure the safety of students?

Implement fire detection and alarm systems: Fire detection and alarm systems

can be used to quickly detect and respond to fires, reducing the risk of injury or death.

Smart security systems: Smart security systems can be installed in schools to monitor the premises and detect any suspicious activity. These systems can use technologies such as video surveillance, facial recognition, and motion sensors to identify potential threats and alert authorities in real-time.

3. How to use AI to prepare and present lessons intelligently?

Content curation: Use AI-powered content curation tools to gather relevant resources, such as articles, videos, and podcasts, on the topic you're teaching. These tools can help you quickly sift through a large amount of content and select the most valuable resources.

4. How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Provide opportunities for collaboration: Intelligent teaching and learning platforms can provide opportunities for students to collaborate on projects and assignments. Teachers can create online discussion forums or collaborative

workspaces where students can share ideas, provide feedback, and work together on projects.

5. How to use artificial intelligence for workplace learning?

Machine learning-based feedback: AI-powered feedback mechanisms can help employees receive feedback on their performance and provide suggestions for improvement. This can help employees receive more consistent and targeted feedback from managers and trainers.

6. How to make full use of the intelligent marking and learning analysis system?

Understand the system: Familiarize yourself with the system's features and capabilities. Learn how to access and interpret the data it provides.

Take advantage of additional resources: Many intelligent marking and learning analysis systems come with additional resources, such as videos, tutorials, and quizzes. Use these resources to enhance your learning and reinforce the concepts you are studying.

7. How to make full use of automated oral evaluation system?

Understand the system: Familiarize yourself with the system and how it works. Learn about the criteria it uses to evaluate essays and how the feedback is generated.

Take practice tests: Many automated evaluation systems provide practice tests that can help you get familiar with the system and identify areas where you need to improve. Use these practice tests to get a feel for the types of questions and tasks that will be presented in the actual test.

8. How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Understand the purpose of the evaluation: Before using the mental health evaluation system, it is important to understand its purpose. The goal of the system

is to identify students who may be at risk of developing mental health problems and provide early intervention to alleviate these issues.

Identify the right system: Choose a mental health evaluation system that is specifically designed to assess college students' mental health needs. Look for a system that has been validated through research and has a track record of accurately identifying mental health issues.

9. How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Personalized learning: AI-powered learning platforms can help students learn more efficiently by providing personalized recommendations and feedback based on their learning history and performance. These platforms can also adapt to individual learning styles and pace, ensuring that students receive a customized learning experience.

10. How to make individualized student development plans by using artificial intelligence?

Collect Data: Collecting data about each student is an essential first step in creating individualized development plans. This data can include academic records, attendance, test scores, behavior records, and other relevant data points.

Interviewee 2:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Familiarize yourself with the technology: Take the time to learn how to use the technology in the smart classroom, including the interactive whiteboard, projectors, and other devices. This will help you use them more effectively during class.

Accessible Learning: Smart classrooms can accommodate a variety of learning needs and disabilities by providing closed captioning, audio descriptions, and other assistive technologies. This allows all students to fully participate in classroom activities.

2.How to use intelligent technologies to ensure the safety of students?

Emergency response systems: Intelligent emergency response systems can be used to quickly respond to any emergency situations that may arise in schools. These systems can use technologies such as panic buttons, automated alerts, and real-time communication to connect students and staff with emergency services and first responders.

Use predictive analytics: Predictive analytics can be used to identify patterns and trends that may indicate potential safety threats, allowing schools to take proactive measures to prevent incidents from occurring.

1. How to use AI to prepare and present lessons intelligently?

Personalization: Use AI-powered tools to personalize the learning experience for each student. These tools can analyze data on each student's learning style, interests, and skill level, and recommend lessons and activities that are tailored to their needs.

2. How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Encourage participation: Intelligent teaching and learning platforms can be used to encourage participation from all students, including those who may be hesitant to speak up in class. Teachers can create online polls or quizzes to gauge student understanding, and use tools like chatbots or virtual assistants to answer student questions in real-time.

3. How to use artificial intelligence for workplace learning?

Content curation: AI algorithms can analyze vast amounts of content to curate relevant and engaging training materials for employees. This can help trainers and instructors save time and ensure that employees have access to the most up-to-date information.

4. How to make full use of the intelligent marking and learning analysis system?

Track progress: Regularly track your progress and performance through the system. Use the data to identify areas where you are strong and areas where you need to improve.

5. How to make full use of automated oral evaluation system?

Familiarize yourself with the system: Understand how the system works and what it measures. Learn how to access and use the system effectively.

Prepare for the evaluation: Before the evaluation, practice your speaking skills using the system's resources and practice exercises. This can help you feel more confident and prepared for the evaluation.

6. How to use the mental health evaluation system to predict and alleviate university students' mental health problems?

Provide early intervention: Once at-risk students have been identified, provide them with early intervention. This can include counseling, support groups, or other resources available on campus.

Administer the evaluation: Administer the evaluation to all university students, either online or in-person. Ensure that students understand the purpose of the evaluation and feel comfortable sharing their responses.

7. How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Use common metrics: When using the evaluation system for teaching cooperation, ensure that common metrics are used to evaluate teaching

effectiveness. This will allow educators to compare and contrast their performance and identify best practices.

8. How to make individualized student development plans by using artificial intelligence?

Analyze Data: Once you have collected data, you need to analyze it using AI algorithms to identify patterns, trends, and individual differences. Machine learning algorithms can be used to analyze the data and identify student's learning styles, strengths, and weaknesses.

Interviewee 3:

1. How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Collaborative Learning: Smart classrooms promote collaborative learning. With technology, students can work together on projects and assignments, sharing ideas and knowledge.

Real-time Collaboration: Smart classrooms allow students to collaborate in real-time using cloud-based tools like Google Docs and Microsoft Teams. This facilitates teamwork and allows students to work together on projects even when they are not physically in the same location.

2. How to use intelligent technologies to ensure the safety of students?

Personal safety devices: Wearable devices such as smartwatches and GPS trackers can be given to students to ensure their safety. These devices can track the location of students, monitor their movements, and alert authorities in case of any emergencies.

Use GPS tracking: GPS tracking can be used to monitor the location of students, particularly those who are at high risk of being targeted for crime or who have special needs.

3.How to use AI to prepare lessons intelligently?

Natural Language Processing: Use Natural Language Processing (NLP) algorithms to analyze the language of your lesson plans and identify areas where the content may be unclear or difficult to understand. This can help you make adjustments to your lesson plans to improve their clarity and effectiveness.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Provide feedback: Intelligent teaching and learning platforms can provide instant feedback to students on their performance, allowing them to adjust their learning strategies and improve their understanding of the material. Teachers can also use these platforms to provide personalized feedback to students, highlighting areas where they need to improve and providing specific suggestions for how to do so.

5.How to use artificial intelligence for workplace learning?

Predictive analytics: AI-powered predictive analytics can help identify which employees are most likely to leave the company or need additional training. This information can be used to create targeted retention and training programs.

6.How to make full use of the intelligent marking and learning analysis system?

Analyze data: Use the data provided by the system to identify patterns and trends. This can help you understand how you learn best and what strategies are most effective for you.

7.How to make full use of automated oral evaluation system?

Listen carefully to the prompts: Listen carefully to the prompts provided by the system and follow the instructions carefully. Make sure you understand what is being asked of you before you begin speaking.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Analyze the results: Analyze the results of the evaluation to identify patterns and trends in students' mental health needs. Look for common issues such as anxiety, depression, or stress.

Encourage self-care: Encourage students to practice self-care, such as getting enough sleep, exercising regularly, and eating a healthy diet. Provide them with resources and information on how to maintain good mental health.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Personalized learning: AI-powered learning platforms can help students learn more efficiently by providing personalized recommendations and feedback based on their learning history and performance. These platforms can also adapt to individual learning styles and pace, ensuring that students receive a customized learning experience.

10.How to make individualized student development plans by using artificial intelligence?

Develop Plans: Based on the analysis, you can develop individualized student development plans that cater to each student's needs. These plans can include personalized learning objectives, milestones, and assessment criteria.

Interviewee 4:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Online Resources: Smart classrooms offer access to a wealth of online resources

such as e-books, educational videos, and simulations. These resources can be used to supplement classroom learning and provide a more holistic education.

Parent Engagement: Smart classrooms can improve parent engagement by providing parents with access to their child's progress and performance data. This allows parents to be more involved in their child's education and support their learning at home.

2. How to use intelligent technologies to ensure the safety of students?

AI-powered risk assessments: AI-powered risk assessments can be used to identify potential threats and risks to student safety. By analyzing data from various sources, including social media and online activity, these systems can identify individuals who may pose a risk to student safety and alert authorities accordingly.

3.How to use AI to prepare and present lessons intelligently?

Automated grading: Use AI-powered tools to grade assignments, tests, and quizzes automatically. These tools can analyze student responses and provide instant feedback, saving you time and ensuring that grading is fair and consistent.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Use data to inform teaching: Intelligent teaching and learning platforms generate a wealth of data that can be used to inform teaching practices. Teachers can use this data to identify areas where students are struggling, adjust teaching strategies to better meet students' needs, and monitor student progress over time.

5.How to use artificial intelligence for workplace learning?

Performance analytics: AI-powered performance analytics can analyze employee data to identify patterns and trends. This information can be used to create targeted learning programs to address areas of weakness and help employees improve their performance.

6.How to make full use of the intelligent marking and learning analysis system?

Adjust learning strategies: Based on the analysis of the data, adjust your learning strategies to optimize your learning outcomes. For example, if you

consistently struggle with certain types of questions, focus your efforts on improving those skills.

7.How to make full use of automated oral evaluation system?

Speak clearly and confidently: Speak clearly and confidently, using proper grammar and pronunciation. Try to speak at a natural pace and avoid rushing or speaking too slowly.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Prioritize interventions: Prioritize interventions based on the severity and prevalence of mental health issues identified in the evaluation. Consider offering group counseling or individual counseling sessions, as well as resources such as mindfulness practices or stress reduction techniques.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Virtual assistants: AI-powered virtual assistants can help students manage their daily affairs by reminding them of important deadlines, events, and appointments. These assistants can also answer questions and provide guidance on a range of topics, such as study strategies, time management, and goal setting.

10.How to make individualized student development plans by using artificial intelligence?

Monitor Progress: AI can help monitor each student's progress and adapt their individualized plan accordingly. By using machine learning algorithms, you can track each student's progress and identify areas that need more focus.

Interviewee 5:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Gamification: Smart classrooms can incorporate gamification techniques to make learning more fun and engaging. Teachers can use gamified quizzes, simulations, and games to reinforce learning concepts and motivate students.

2. How to use intelligent technologies to ensure the safety of students?

Online safety tools: With the increasing use of digital devices and online platforms, it is important to ensure that students are safe online. Intelligent technologies such as web filters, parental controls, and online monitoring tools can be used to protect students from online predators, cyberbullying, and other online threats.

3.How to use AI to prepare and present lessons intelligently?

Adaptive learning: Use adaptive learning platforms that use AI to adapt the difficulty of the lesson to the student's progress. These platforms can adjust the content, pace, and difficulty level of the lesson based on the student's performance and learning needs.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Facilitate communication: Intelligent teaching and learning platforms can facilitate communication between teachers and students by providing a centralized location for announcements, feedback, and other important information. Teachers can also use these platforms to communicate with parents or guardians, providing updates on student progress and sharing resources to support learning at home.

5.How to use artificial intelligence for workplace learning?

Natural language generation: AI-powered natural language generation tools can create written and spoken content, such as training materials, summaries, and assessments, based on data inputs. This can help trainers and instructors save time and ensure that training materials are consistent and effective.

6.How to make full use of the intelligent marking and learning analysis system?

Communicate with educators: Share your data and analysis with your educators. They can provide additional insights and support to help you succeed.

7.How to make full use of automated oral evaluation system?

Use appropriate vocabulary: Use appropriate vocabulary and expressions to convey your meaning clearly. Avoid using slang or overly complex language that may be difficult for the system to understand.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Monitor progress: Monitor students' progress over time using the evaluation system. Use the data to evaluate the effectiveness of interventions and adjust strategies as needed.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Intelligent tutoring systems: AI-powered tutoring systems can provide students with personalized feedback and support on their academic work. These systems can analyze students' responses to questions and provide targeted feedback and guidance to help them improve their understanding and skills.

10.How to make individualized student development plans by using artificial intelligence?

Create an individualized student development plan that outlines the steps needed to achieve each student's goals. This plan should include details such as the resources needed, the timeline for achieving the goals, and the strategies that will be used.

Interviewee 6:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Plan lessons around the technology: Use the technology in the smart classroom to enhance lessons. For example, use interactive whiteboards to display multimedia content, such as videos, images, and animations, to engage students and facilitate discussion.

Use the library's intelligent search capabilities: Take advantage of the library's advanced search tools to find relevant materials quickly and efficiently. Use keywords, phrases, and filters to narrow down search results.

2. How to use intelligent technologies to ensure the safety of students?

Contact tracing: In the event of a disease outbreak or a COVID-19 outbreak, contact tracing technology can be used to quickly identify and isolate infected individuals. This technology uses Bluetooth or GPS data to track the movements of individuals and alert others who may have been in close contact with them.

Use emergency notification systems: Emergency notification systems can be used to quickly alert students and staff in the event of an emergency, such as a natural disaster or an active shooter situation. This can include text message alerts, phone calls, or email notifications.

3.How to use AI to prepare lessons intelligently?

Data-driven insights: Use AI to analyze data on student performance, engagement, and feedback to identify areas where students are struggling or excelling. This can help you adjust your lesson plans and teaching strategies to better meet the needs of your students.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Create engaging learning experiences: Intelligent teaching and learning platforms can be used to create engaging and interactive learning experiences for students. Teachers can use multimedia resources like videos, animations, and simulations to bring complex concepts to life, and use gamification techniques to motivate and engage students.

Sentiment analysis: AI can be used to analyze the sentiment of social media posts or news articles, allowing researchers to understand public opinion on a given topic.

5.How to use artificial intelligence for workplace learning?

Machine learning-based feedback: AI-powered feedback mechanisms can help employees receive feedback on their performance and provide suggestions for improvement. This can help employees receive more consistent and targeted feedback from managers and trainers.

6.How to make full use of the intelligent marking and learning analysis system?

Utilize resources: Take advantage of the resources available through the system, such as tutorials, practice exercises, and additional learning materials.

Set goals: Use the data provided by the system to set specific, measurable goals for yourself. For example, if you consistently struggle with a particular type of question, set a goal to improve your performance in that area by a certain percentage.

7.How to make full use of automated oral evaluation system?

Review your results: Review your results and the feedback provided by the system. Use this feedback to identify areas where you need to improve and adjust your learning strategies accordingly.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Provide ongoing support: Offer ongoing support to students through resources such as mental health hotlines, peer support groups, or counseling services. Encourage students to seek help when needed and provide them with resources to help them manage their mental health.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Predictive analytics: AI-powered analytics tools can help students track their progress and identify areas where they need to focus their efforts. These tools can analyze data such as grades, attendance, and participation to predict future performance and suggest ways to improve.

10.How to make individualized student development plans by using artificial intelligence?

Ensure Data Privacy: Collecting and analyzing student data using AI requires careful consideration of data privacy laws and regulations. Ensure that you have obtained proper consent from students and their families and that you are following all applicable laws and regulations.

Interviewee 7:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Digital Note-taking: Smart classrooms allow students to take digital notes using tablets or laptops. Digital notes can be synced with the cloud, making it easy for students to access and review their notes from anywhere.

Use personalized recommendations: Take advantage of the library's personalized reading recommendations based on your reading habits and preferences. This can help you discover new topics and expand your knowledge reserve.

Smart campus: Smart campus technology can use AI to optimize campus resources, such as energy consumption, transportation, and parking. This can help reduce costs, improve efficiency, and enhance the overall campus experience.

2. How to use intelligent technologies to ensure the safety of students?

Use mobile panic buttons: Mobile panic buttons can be installed on smartphones or other mobile devices, allowing students and staff to quickly alert authorities in the event of an emergency.

Implement virtual security guards: Virtual security guards, powered by artificial intelligence and machine learning, can be used to monitor campus activity and detect potential threats. These virtual guards can use video surveillance and other sensors to identify suspicious behavior and alert human security personnel.

3.How to use AI to prepare and present lessons intelligently?

Natural language generation: Use Natural Language Generation (NLG) tools to automatically generate lesson summaries, notes, and other materials in plain language. This can help students who struggle with reading comprehension or who are non-native speakers of the language of instruction.

Predictive analytics: AI can help teachers predict student performance and identify students who may need extra support. This can help teachers intervene early and provide timely support to improve student outcomes.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Foster self-directed learning: Intelligent teaching and learning platforms can help students take ownership of their learning by providing them with the tools and resources they need to learn independently. Teachers can use these platforms to provide students with access to online resources, create self-paced learning modules, and track progress over time.

Simulation and modeling: AI can be used to create simulations and models that can help researchers test hypotheses and explore complex systems.

5.How to use artificial intelligence for workplace learning?

Sentiment analysis: AI-powered sentiment analysis can be used to analyze employee feedback, comments, and surveys to determine how employees are responding to learning initiatives. This can help trainers and managers understand what is working and what needs improvement.

6.How to make full use of the intelligent marking and learning analysis system?

Review feedback: Pay close attention to the feedback provided by the system. Use this feedback to identify areas where you are making mistakes and adjust your learning strategies accordingly.

Establish regular communication channels: Establish regular communication channels, such as weekly meetings or online discussion forums, for educators to discuss evaluation data and collaborate on teaching strategies.

7.How to make full use of automated oral evaluation system?

Practice regularly: Practice your speaking skills regularly using the system's resources and practice exercises. This can help you improve your performance and achieve better results over time.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Provide education and awareness: Educate students about mental health and promote awareness of the importance of seeking help. Offer resources such as informational brochures or workshops to help students learn about mental health and reduce the stigma associated with seeking help.

Use the evaluation system in combination with other evaluation methods: While the evaluation system of artificial intelligence can provide valuable insights, it

is important to use it in combination with other evaluation methods. This can include feedback from students, peer evaluations, and personal reflection.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Assessing student performance: AI evaluation systems can analyze students' performance data, such as their grades, attendance, and participation, to identify areas where they may need additional support. This information can be shared with teachers, who can then tailor their teaching strategies to meet the needs of each student.

Content recommendation: AI can be used to recommend content that is tailored to each student's learning needs and preferences. This can help students stay engaged and motivated by providing them with relevant and interesting materials.

10.How to make individualized student development plans by using artificial intelligence?

Maintain Transparency: It's important to maintain transparency when using AI in education. Students and their families should be informed about how their data is being collected, analyzed, and used. Providing clear explanations of how the AI algorithms work and how the data is being used can help build trust with students and their families.

Interviewee 8:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Virtual Field Trips: Smart classrooms can take students on virtual field trips to places they would not normally have access to. For example, students can visit museums, historical sites, and even other countries without leaving the classroom.

Use digital materials: Many intelligent libraries provide access to digital versions of books and other reading materials. Use these resources to access reading materials quickly and easily, especially if you prefer reading on electronic devices.

Collaborate with colleagues: Collaborate with colleagues to share best practices and ideas for using the smart classroom technology. Attend professional development sessions and conferences to learn about new strategies and techniques for using technology in the classroom.

2. How to use intelligent technologies to ensure the safety of students?

Predictive analytics: Predictive analytics can be used to analyze data from various sources, including social media, attendance records, and academic performance, to identify students who may be at risk of harming themselves or others. This can help schools intervene early and provide support to these students before any incidents occur.

Implement smart lockers: Smart lockers can be used to provide a secure place for students to store their belongings, such as laptops or phones, during the day. These lockers can be equipped with biometric authentication or other security measures to prevent theft.

3.How to use AI to prepare lessons intelligently?

Virtual assistants: Use AI-powered virtual assistants to answer student questions, provide feedback, and offer personalized support. These assistants can be programmed to respond to frequently asked questions and provide additional resources as needed.

Gamification: AI-powered game-based learning platforms can make learning more engaging and fun for students. These platforms can use AI to adapt the difficulty level of the game to match the student's level of understanding and provide personalized feedback.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Provide access to real-time information: Intelligent teaching and learning platforms can provide students with real-time information about their progress, grades, and other important information. Teachers can use these platforms to share updates and announcements, as well as provide students with personalized feedback on their work.

Automated literature reviews: AI can be used to conduct automated literature reviews, allowing researchers to quickly and efficiently identify relevant studies and findings.

5.How to use artificial intelligence for workplace learning?

Knowledge management: AI-powered knowledge management systems can be used to store and manage organizational knowledge. This can include best practices, training materials, and other information that employees need to perform their jobs. AI can be used to help organize this information and make it easily accessible to employees.

6.How to make full use of the intelligent marking and learning analysis system?

Collaborate with peers: Use the system to collaborate with other students who are using the same system. Share insights, strategies, and resources to help each other succeed.

Consider the limitations of the evaluation system: It is important to consider the limitations of the evaluation system of artificial intelligence, such as the types of data it can analyze and potential biases in the data. Use the system as a tool for gaining insights, but also use your own judgment and experience to interpret and apply the results.

7.How to make full use of automated oral evaluation system?

Seek support: If you are struggling to make progress despite using the system, seek support from your educators or other resources. They can provide additional guidance and support to help you improve your spoken language skills.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Foster a supportive campus culture: Foster a campus culture that prioritizes mental health and wellness. Encourage students to take care of themselves through healthy habits such as regular exercise, healthy eating, and good sleep habits.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Evaluating teacher performance: AI evaluation systems can analyze various aspects of a teacher's performance, such as their teaching effectiveness, communication skills, and engagement with students. This information can be used to provide feedback to the teacher and help them improve their teaching methods.

Predictive maintenance for technology: AI can be used to monitor and predict maintenance needs for technology used in the classroom, such as projectors and computers. This can help reduce downtime and ensure that technology is always available when needed.

10.How to make individualized student development plans by using artificial intelligence?

Focus on Equity: AI can help identify areas where students are struggling, but it's important to ensure that interventions are targeted to address systemic issues rather than individual student deficiencies. Focus on addressing the root causes of disparities and inequalities to ensure that all students have an equal opportunity to succeed.

Collaborate with domain experts: While AI can be a powerful tool for data analysis, it's important to also work with domain experts who have subject matter

expertise. This can help ensure that the analysis is relevant and accurate, and that the insights generated are actionable.

Interviewee 9:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Student Response Systems: Smart classrooms can incorporate student response systems, which allow teachers to get instant feedback on student understanding. These systems can also help teachers identify areas where students may be struggling and adjust their teaching accordingly.

Participate in interactive learning experiences: Many intelligent libraries offer interactive learning experiences such as quizzes, games, and multimedia content that engage students and make learning more fun and interactive. Take advantage of these opportunities to deepen your understanding of the material.

2. How to use intelligent technologies to ensure the safety of students?

Biometric authentication: Biometric authentication technology, such as fingerprint or facial recognition, can be used to ensure that only authorized individuals are allowed to enter school premises. This can help prevent unauthorized access and improve overall security.

Implement emergency response robots: Emergency response robots can be used to quickly and safely respond to emergencies, such as natural disasters or hazardous materials incidents. These robots can be equipped with cameras and sensors to gather information and provide real-time situational awareness to first responders.

3.How to use AI to prepare and present lessons intelligently?

Smart scheduling: AI algorithms can help students plan their schedules more efficiently, taking into account their class schedules, extracurricular activities, and study time. This can help reduce stress and improve time management.

Intelligent tutoring: AI-powered tutoring systems can provide personalized feedback and guidance to students, helping them to better understand difficult concepts and improve their grades.

Use citation management tools: Many intelligent libraries provide citation management tools that allow you to organize your references and citations. Use these tools to streamline your research process and save time.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Facilitate remote learning: Intelligent teaching and learning platforms can be especially useful in facilitating remote learning. Teachers can use these platforms to deliver lectures, assign and grade assignments, and provide personalized feedback to students, all from a remote location.

Quality control: AI can be used to ensure the quality of research by identifying errors, inconsistencies, or other issues in data or research processes.

5.How to use artificial intelligence for workplace learning?

Augmented reality: AI-powered augmented reality (AR) can be used to provide employees with real-time information and guidance as they perform tasks. For example, AR can provide step-by-step instructions, safety information, or other relevant information to employees as they work.

6.How to make full use of the intelligent marking and learning analysis system?

Stay motivated: Use the system's features to stay motivated and engaged with your learning. For example, many systems offer rewards, badges, or other incentives for completing certain tasks or achieving specific goals.

Use the analysis system to identify trends: Use the analysis data provided by the artificial intelligence system to identify trends in student performance and engagement across courses or departments. This can help educators work together to develop institution-wide strategies for improving teaching effectiveness.

7.How to make full use of automated oral evaluation system?

Analyze your mistakes: Pay close attention to the mistakes you make during the evaluation and try to identify patterns or areas where you struggle the most. Use this information to focus your practice and learning efforts on those areas.

Take advantage of resources: Many automated oral evaluation systems offer additional resources, such as practice exercises, tutorials, and language learning materials. Take advantage of these resources to supplement your learning and improve your skills.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Use data to inform policy and decision-making: Use data from the mental health evaluation system to inform policy and decision-making related to mental health on campus. For example, if the data suggests that there is a high prevalence of anxiety among students, consider implementing programs or resources that specifically address anxiety.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Facilitating peer evaluation: AI evaluation systems can provide a platform for peer evaluation, where teachers can evaluate each other's teaching methods and share feedback. This can help promote collaboration and cooperation among teachers and improve the overall quality of teaching.

Educational data mining: AI can be used to analyze large sets of educational data to identify trends and patterns. This can help teachers and administrators

identify areas where improvements can be made and optimize their instructional strategies.

10.How to make individualized student development plans by using artificial intelligence?

Incorporate Human Interaction: While AI can be a valuable tool for creating individualized student development plans, it's important to balance it with human interaction. Educators should use their professional judgment to interpret the data and provide personalized guidance and support.

Incorporate human judgment: While AI can provide valuable insights, it's important to also incorporate human judgment into the analysis process. This can help ensure that the insights generated are relevant and useful, and can help identify any potential biases or inaccuracies in the data.

Interviewee 10:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Flipped Learning: Smart classrooms can facilitate flipped learning, where students watch pre-recorded lectures or instructional videos at home and come to class ready to apply what they have learned. This allows for more in-depth discussions and activities in class.

Collaborate with other students: Many intelligent libraries provide tools for group projects and discussions. Collaborate with other students to share knowledge and deepen your understanding of the material.

Virtual assistants: AI-powered virtual assistants can help students with administrative tasks, such as registering for classes, paying tuition fees, and applying for scholarships. This can save students time and reduce administrative burdens.

Academic research: AI-powered research tools can help students find relevant literature, analyze data, and write research papers. This can help students conduct more efficient and effective research.

2. How to use intelligent technologies to ensure the safety of students?

Mobile apps: Mobile apps can be used to provide students, parents, and staff with real-time information and alerts related to school safety. These apps can provide emergency alerts, safety tips, and resources for reporting incidents or seeking help.

Collaborative tools: Collaborative tools such as online forums, video conferencing, and messaging apps can be used to promote communication and collaboration among students, parents, and school staff. This can help build a sense of community and facilitate the sharing of information related to student safety.

3.How to use AI to prepare lessons intelligently?

Gamification: Use AI-powered gamification tools to create interactive, engaging lesson plans that motivate students to learn. These tools can use game mechanics such as points, badges, and leaderboards to incentivize learning and promote healthy competition.

Virtual reality: AI-powered virtual reality (VR) simulations can provide students with immersive learning experiences. For example, students can explore historical sites, conduct virtual science experiments, or practice real-world skills in a safe and controlled environment.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Create digital portfolios: Intelligent teaching and learning platforms can be used to create digital portfolios that showcase students' work and progress over time. This can provide students with a sense of pride and accomplishment, as well as a valuable tool for demonstrating their skills and knowledge to others.

Teacher training: AI can be used to develop training materials and professional development programs for teachers. For example, AI-powered simulations can provide teachers with opportunities to practice different teaching strategies and receive personalized feedback on their performance.

5.How to use artificial intelligence for workplace learning?

Natural language understanding: AI-powered natural language understanding can be used to create more effective communication and training materials. For example, this technology can be used to create chatbots that can understand and respond to employee questions or to create voice assistants that can provide real-time assistance.

6.How to make full use of the intelligent marking and learning analysis system?

Seek support: If you are struggling to make progress despite using the system, seek support from your educators or other resources. They can provide additional guidance and support to help you achieve success.

Develop shared resources: Develop shared resources, such as lesson plans and teaching materials, that are based on the evaluation data and best practices identified through collaboration. These resources can be used by educators across the institution to improve teaching effectiveness.

7.How to make full use of automated evaluation system?

Practice with a partner: Practice speaking with a partner or language exchange partner using the system's prompts and exercises. This can help you improve your speaking skills in a more natural and interactive setting.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Collaborate with other departments and organizations: Collaborate with other departments and organizations on campus to provide a comprehensive approach to

mental health. Consider working with student health services, counseling services, and student organizations to offer a range of resources and support for students.

Seek out professional development opportunities: Seek out professional development opportunities to improve teaching skills and stay up-to-date with the latest teaching strategies and evaluation methods. This can include attending workshops, conferences, or taking online courses.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Identifying teaching gaps: AI evaluation systems can identify gaps in the curriculum and teaching methods, and suggest areas where improvements can be made. This can help teachers to focus on areas that need improvement and improve the quality of teaching.

Student retention: AI can be used to predict which students may be at risk of dropping out and provide targeted support to prevent them from doing so. This can include interventions such as personalized tutoring, counseling, and mentorship.

10.How to make individualized student development plans by using artificial intelligence?

Define the problem: Determine the problem you want to solve using AI. This will help you identify the type of data you need and the AI algorithms you will use.

Evaluate the Impact: It's important to evaluate the impact of using AI in education to ensure that it is achieving the desired outcomes. Collect data on student performance and compare it to pre-AI implementation to determine if there has been a significant improvement.

Interviewee 11:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Distance Learning: Smart classrooms can facilitate distance learning by allowing students to attend classes remotely. This is particularly useful for students who live in remote areas or have difficulty attending classes in person.

By using the tools and capabilities provided by intelligent libraries, students can improve their reading efficiency and knowledge reserve, making learning more engaging and effective.

Take advantage of library events and workshops: Many intelligent libraries offer events and workshops on various topics, such as research skills, citation management, and academic writing. Attend these events to learn new skills and deepen your understanding of the material.

2. How to use intelligent technologies to ensure the safety of students?

Social-emotional learning (SEL) tools: Intelligent technologies such as virtual reality (VR) and augmented reality (AR) can be used to create immersive learning experiences that help students develop social-emotional skills such as empathy, self-awareness, and conflict resolution. This can lead to safer school environments by promoting positive relationships and reducing instances of bullying and harassment.

3.How to use AI to prepare and present lessons intelligently?

Predictive analytics: Use predictive analytics to anticipate student performance and engagement based on historical data. This can help you identify students who may be at risk of falling behind and provide additional support before they struggle.

Adaptive assessments: AI can be used to create adaptive assessments that adjust to a student's level of understanding, providing them with questions that

match their current level of knowledge. This can help identify gaps in knowledge and provide targeted feedback.

Curriculum development: AI can be used to analyze data on student performance and engagement to inform the development of new curriculum materials and teaching strategies. This can help ensure that the curriculum is aligned with students' learning needs and is optimized for student success.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Use data to identify trends: Intelligent teaching and learning platforms can be used to identify trends and patterns in student performance, such as areas where many students are struggling or excelling. This can help teachers adjust their teaching strategies to better meet the needs of their students.

Student engagement: AI can help teachers better understand student engagement and identify areas where students may be disengaged. For example, AI-powered tools can analyze student behavior and interactions with online learning platforms to identify patterns that may indicate low engagement.

5.How to use artificial intelligence for workplace learning?

Automated content creation: AI-powered tools can automatically generate training content, such as quizzes, assessments, and videos. This can help organizations create more content in less time and ensure that the content is up-to-date and accurate.

6.How to make full use of the intelligent marking and learning analysis system?

Identify patterns: Look for patterns in the data provided by the system.
For example, do you consistently make the same type of mistake? Do you struggle with certain topics or concepts more than others? Identifying patterns can help you focus your learning efforts on areas where you need the most improvement.

7.How to make full use of automated evaluation system?

Track your progress: Keep track of your progress over time by recording your scores and reviewing your feedback. This can help you see how far you've come and stay motivated to continue improving.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Continuously evaluate and improve: Continuously evaluate the effectiveness of the mental health evaluation system and the interventions offered. Make adjustments as needed to improve the system and ensure that students are receiving the support they need.

Share the results with colleagues: Share the results of the evaluation system with colleagues and engage in discussions about teaching strategies and student learning outcomes. This can lead to valuable insights and feedback, and can help improve teaching effectiveness across the institution.

Seek out professional development opportunities: Seek out professional development opportunities for educators to stay up-to-date with the latest teaching strategies and evaluation methods. This can include attending workshops, conferences, or taking online courses.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Personalized Time Management: AI-powered apps can help students manage their time more efficiently. These apps can analyze a student's schedule and suggest the most optimal way to complete tasks. Additionally, they can also remind students about deadlines and upcoming events.

Intelligent Scheduling: AI-powered scheduling systems can help students organize their daily affairs more effectively. The systems can take into account factors such as class schedules, extracurricular activities, and personal commitments, and then suggest a schedule that maximizes efficiency.

10.How to make individualized student development plans by using artificial intelligence?

Evaluate the results: Evaluate the results of the AI algorithm and determine if it has solved the problem accurately. If not, adjust the parameters of the algorithm and retrain it.

Evaluate the Impact: It's important to evaluate the impact of using AI in education to ensure that it is achieving the desired outcomes. Collect data on student performance and compare it to pre-AI implementation to determine if there has been a significant improvement.

Interviewee 12:

1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?

Use data analytics to track progress: Many intelligent libraries provide data analytics tools that allow you to track your reading progress, such as the number of books read, the amount of time spent reading, and the topics covered. Use this information to set goals and improve your reading efficiency.

Data Analysis: Smart classrooms can generate data on student performance and engagement, which can be analyzed to identify trends and patterns. This data can be used to improve teaching methods and tailor instruction to individual student needs.

2. How to use intelligent technologies to ensure the safety of students?

Intelligent transportation systems: Intelligent transportation systems can be used to ensure the safety of students during transportation to and from school. These systems can use technologies such as GPS tracking and real-time communication to monitor the location of school buses and ensure that students are picked up and dropped off safely.

Environmental monitoring: Intelligent environmental monitoring systems can be used to detect and respond to environmental hazards that may affect student safety, such as air pollution or natural disasters. These systems can use sensors and data analysis to provide real-time alerts and guidance on how to respond to such hazards.

3.How to use AI to prepare lessons intelligently?

Identify the learning objectives: Before you start preparing a lesson, you need to identify the learning objectives that you want your students to achieve. AI tools can help you analyze the learning objectives and provide you with insights on how to structure your lesson.

Learning analytics: AI can help teachers analyze student data to gain insights into student learning and adjust their teaching methods accordingly. This can include analyzing student performance data to identify areas where students need extra support, or using data to identify the most effective teaching strategies for different groups of students.

Adaptive learning pathways: AI can help teachers create adaptive learning pathways for students that adjust in real-time based on the student's progress and needs. This can help students stay engaged and motivated, and ensure that they are learning at a pace that is appropriate for them.

4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?

Offer real-time support: Intelligent teaching and learning platforms can offer real-time support to students who may be struggling with the material. For example, teachers can use chatbots or virtual assistants to provide students with immediate feedback and support.

Interactive textbooks: AI can be used to develop interactive textbooks that provide students with personalized learning experiences. These textbooks can adapt

to students' individual learning needs and provide feedback on their progress as they work through different chapters and assignments.

5.How to use artificial intelligence for workplace learning?

Social learning: AI can be used to facilitate social learning, where employees learn from each other through online communities or forums. AI can be used to identify experts within the organization and recommend them to others seeking help or advice.

Adaptive learning paths: AI can be used to create adaptive learning paths, where the content and pace of learning is tailored to the individual employee's needs and progress. This can help employees learn more efficiently and effectively.

6.How to make full use of the intelligent marking and learning analysis system?

Use real-world examples: Try to connect what you are learning to real-world examples and situations. This can help you understand the material better and make it more relevant and meaningful to you.

Stay organized: Keep track of your progress and learning goals in a journal or planner. This can help you stay focused and motivated, and ensure that you are making progress towards your goals.

7.How to make full use of automated evaluation system?

Use the system as a tool: Remember that the automated oral evaluation system is a tool to help you improve your spoken language skills. Use it as a supplement to other language learning methods, such as speaking with native speakers, taking classes, or practicing with language learning apps.

Stay motivated: Use the system's features to stay motivated and engaged with your language learning. Set rewards or incentives for achieving certain goals or milestones, and celebrate your successes along the way.

Use data visualization tools: Use data visualization tools to present evaluation data in a clear and easy-to-understand format. This can help educators identify trends and patterns more easily and make data-informed decisions.

8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?

Involve faculty and staff: Involve faculty and staff in the mental health support network. Encourage them to refer students to the mental health evaluation system and to be aware of signs of mental health issues in their students. Provide them with training and resources to help them support students who may be struggling with mental health issues.

Tailor interventions to individual needs: Use the data from the mental health evaluation system to tailor interventions to individual needs. Consider offering personalized support such as individual counseling sessions, referrals to specialized services, or accommodations for students with mental health conditions.

Monitor the impact of changes: After making changes to teaching strategies based on the evaluation data, monitor the impact of those changes on student learning outcomes. This will help determine if the changes were effective and identify additional areas for improvement.

Consider the impact of contextual factors: Consider contextual factors, such as student demographics and learning styles, when analyzing the evaluation data. This can help identify teaching strategies that work best for particular student populations.

9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?

Smart scheduling: AI-powered scheduling tools can help students plan and manage their daily activities more efficiently. These tools can analyze students'

schedules and suggest optimal times for completing tasks based on factors such as workload, due dates, and personal preferences.

Automated grading: AI can be used to automate the grading process, reducing the workload of teachers and providing students with immediate feedback. AI-powered grading systems can analyze and evaluate student work, including essays, short answers, and multiple-choice questions.

Collect and clean data: The first step is to collect relevant data and ensure that it is accurate and complete. This may involve cleaning and preprocessing the data to remove errors, inconsistencies, and outliers.

10.How to make individualized student development plans by using artificial intelligence?

Consider Access and Equity: When using AI to create individualized student development plans, it's important to consider access and equity. Not all students may have access to the technology or the resources needed to fully participate in an AI-driven learning environment. It's important to consider how technology can be used to support all students, regardless of their background or circumstances.

Monitor Ethical Considerations: AI is only as ethical as the data that feeds it. Monitor the ethical considerations that arise from the use of AI technology. It's important to identify the ethical principles that must be followed to ensure AI is used in a way that does not cause harm or reinforce bias.

By analyzing the level of the strategies of improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi according to the second part of the questionnaire, it is known that quality management of talent cultivation through artificial intelligence in private universities in Guangxi need to be improved further in terms of artificial intelligence education environment, artificial intelligence teaching and learning process support, artificial intelligence education evaluation, quality objective of talent cultivation, quality assurance of talent cultivation, quality evaluation of talent cultivation, and quality improvement of talent cultivation. On the basis of the third part of the interview, this study carried out strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi, including 4 parts, a total of 27 measures: 1) strategies for quality objectives of talent cultivation with 7 items; 2) strategies for quality assurance of talent cultivation with 10 items; 3) strategies for quality evaluation of talent cultivation with 5 items; 4) strategies for quality improvement of talent cultivation with 5 items.

The specific information is as follows:

Table 4.13 Strategies for improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Quality management of talent cultivation		**Strategies**
Quality objectives of talent cultivation	1	Develop a comprehensive ethical code of conduct related to artificial intelligence
	2	Develop talent cultivation plans of "Artificial Intelligence+ Major"
	3	Acquire many kinds of knowledge by using AI
	4	Get strong problem-solving skills by using AI
	5	Improve language skills by using AI.

Quality management of talent cultivation		Strategies
	6	Make better career planning by using AI.
	7	Improve sports management by using AI.
Quality assurance of talent cultivation	1	Update AI high-tech devices frequently to improve the educational environment
	2	Provide normal management and services with AI
	3	Carry out courses combining artificial intelligence with majors
	4	Develop extracurricular activities related to "artificial intelligence+"
	5	Carry out trainings related to artificial intelligence for teachers and students.
	6	Provide the massive study resources by using AI
	7	Give personalized learning by using AI.
	8	Provide guidance and support to students by using AI
	9	Develop innovative teaching methods by using AI
	10	Strengthen the communication and cooperation between teachers and students by using AI
Quality Evaluation of talent cultivation	1	Establish an intelligent teacher evaluation system
	2	Establish an intelligent student evaluation system
	3	Develop intelligent feedback system between teachers
	4	Develop intelligent feedback system between universities
	5	Promote intelligent self-assessment.

Strategies		
Quality Improvement of talent cultivation	1	Use AI to have self-examination about teaching
	2	Use AI to have self-examination about classroom situation
	3	Use AI to have self-examination about assignment
	4	Use AI to have self-examination after class
	5	Use AI to have self-examination about research

Evaluation Results of the Feasibility of Strategies for Improving Quality Management of Talent Cultivation Through Artificial Intelligence in Private Universities in Guangxi.

The analysis results at this stage led by experts and scholars studying higher education in Guangxi private universities, and representatives of middle level administrators and teachers working in Guangxi private universities. Five people evaluated the validity and feasibility of implementing the strategy. They adopted the form of a five-level scoring table, namely, highest, high, average, low, and lowest. A respondents can only choose one level.

Table 4.14 List of strategy evaluators

Number	Name	Title
1	Liu Quansheng	Deputy Dean of Nanning University
2	Li zhengTan	Associate Professor of Nanning University
3	Wu Yue	Deputy President of Guangxi University of Foreign Languages
4	Huang Yongren	Associate Professor of Guangxi University of Foreign Languages
5	Zhu Qiuping	Full-time teacher of Guilin University

Table 4.15 Data Analysis of Evaluation Results

	Strategies	Feasible		Level
		$\overline{X}$	SD	
	Quality objectives of talent cultivation			
1	Develop a comprehensive ethical code of conduct related to artificial intelligence	3.90	0.46	high
2	Develop talent cultivation plans of "Artificial Intelligence + Major"	4.10	0.45	high
3	Acquire many kinds of knowledge by using AI	4.00	0.40	high
4	Get strong problem-solving skills by using AI	3.70	0.65	high
5	Improve language skills by using AI.	4.10	0.41	high
6	Make better career planning by using AI.	4.40	0.55	high
7	Improve sports management by using AI.	3.91	0.45	high
	Quality assurance of talent cultivation			
1	Update AI high-tech devices frequently to improve the educational environment	4.20	0.45	high
2	Provide normal management and services with AI	3.60	0.55	high
3	Carry out courses combining artificial intelligence with majors	3.80	0.55	high
4	Develop extracurricular activities related to "artificial intelligence+"	3.80	0.45	high
5	Carry out trainings related to artificial intelligence for teachers and students.	4.00	0.40	high
6	Provide the massive study resources by using AI	4.70	0.55	highest
7	Give personalized learning by using AI.	4.20	0.45	high
8	Provide guidance and support to students by using AI	3.80	0.45	high
9	Develop innovative teaching methods by using AI	3.80	0.40	high
10	Strengthen the communication and cooperation between teachers and students by using AI	3.70	0.40	high

	Quality Evaluation of talent cultivation			
1	Establish an intelligent teacher evaluation system	4.10	0.45	high
2	Establish an intelligent student evaluation system	3.60	0.40	high
3	Develop intelligent feedback system between teachers and students	4.80	0.50	highest
4	Develop intelligent feedback system between universities and enterprises	3.80	0.45	high
5	Promote intelligent self-assessment.			
	Quality Improvement of talent cultivation			
1	Use AI to have self-examination about teaching	4.20	0.40	high
2	Use AI to have self-examination about classroom	3.60	0.45	high
3	Use AI to have self-examination about assignment	3.80	0.40	high
4	Use AI to have self-examination after class	4.20	0.40	high
5	Use AI to have self-examination about research	3.80	0.55	high

The results of data analysis indicate that the feasibility of the four strategies and 27 measures from strategies for improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi is at a high level.

The following suggestions are made for other evaluations of the strategies of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi:

1) Private universities can invest in research and development to advance the use of AI in talent cultivation. This investment can help universities stay at the forefront of AI development, identify emerging trends and opportunities, and create new and innovative applications of AI in talent cultivation.

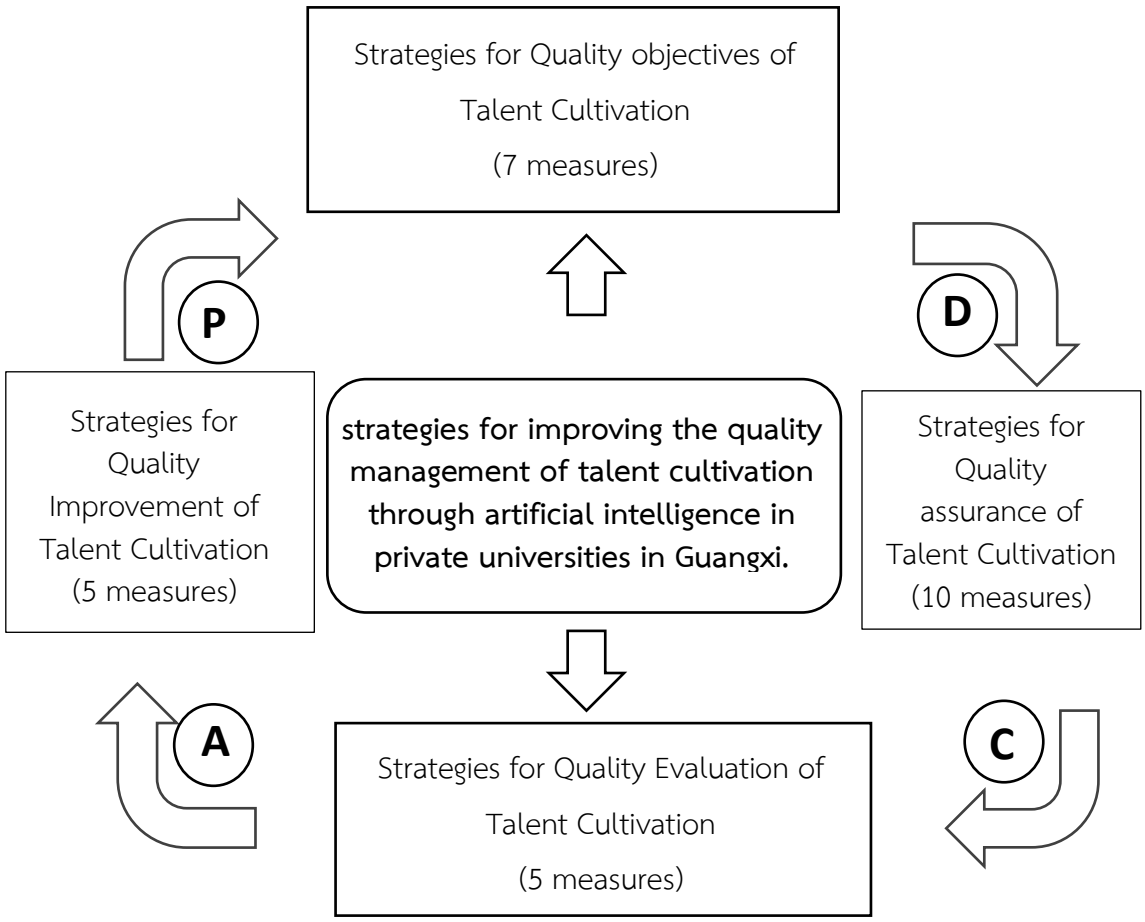
2)Private universities should attract and retain high-quality faculty who are knowledgeable, experienced, and passionate about teaching. This can be achieved by offering competitive salaries and benefits, creating a supportive and collaborative work environment, and providing opportunities for professional development.

3) Private universities can use AI to improve faculty training programs. AI can analyze student feedback, course evaluations, and other data to identify areas where faculty can improve their teaching methods, provide personalized training to faculty members, and track their progress over time.

4) Private universities can conduct research on the effectiveness of AI-powered learning and talent cultivation programs. This research can help identify best practices and areas for improvement in the use of AI for talent cultivation.

5) Private universities can use AI to match students with career opportunities based on their skills and interests. AI can analyze job requirements and compare them to students' profiles, suggesting career paths and providing guidance on necessary skills and training.

Figure 4.15 Strategies chart for strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi.



Chapter 5
Conclusion Discussion and Recommendations

Improving quality management of talent cultivation through artificial intelligence is crucial to improve the quality of education and help students to achieve their full potential. According to a large amount of relevant literature, the theory of total quality management and the theory of constructivism were used in this study. Based on the level and current problems of talent cultivation quality management in private university in Guangxi, it proposed strategies for improving quality objectives of talent cultivation, strategies for quality assurance of talent cultivation, strategies for quality evaluation of talent cultivation and strategies for quality improvement of talent cultivation. Therefore, these strategies are developed to improve students' learning efficiency, enhance teachers' teaching skills, reduce universities' education costs, so as to comprehensively improve the comprehensive competitiveness of the school and to promote the high-quality development of private universities in Guangxi.

1. Research Objectives
2. Research Methodology
3. Conclusion
4. Discussion
5. Recommendations
6. Future Researches

Research Objectives

The objectives of this study are:

1.to study the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

The objectives of studying the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi is to explore the level and existing problems of artificial intelligence education environment, artificial intelligence teaching and learning process support, artificial intelligence education evaluation, artificial intelligence management and service, quality objective of talent cultivation, quality assurance of talent cultivation, quality evaluation of talent cultivation, and quality improvement of talent cultivation for education quality management in private universities in Guangxi. Through questionnaires and interviews with full-time students and teachers in Guangxi private universities, it is found that the current level and problems of quality management of talent cultivation through artificial intelligence in private universities in Guangxi. As survey results were further analyzed and summarized, strategies for improving the quality management of talent cultivation through artificial intelligence in private universities were developed. By adopting these strategies, private universities in Guangxi can enhance the quality of education they provide, reduce costs, and increase their competitiveness, leading to high-quality development and success.

2. To formulate the strategies for improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

According to the existing problems of quality management of talent cultivation in private university in Guangxi, this study proposed corresponding strategies to optimize the talent cultivation quality management strategies of private universities in Guangxi. The point is how to optimize factors such as artificial intelligence education environment, artificial intelligence teaching and learning process support,

artificial intelligence education evaluation, artificial intelligence management and service, quality objective of talent cultivation, quality assurance of talent cultivation, quality evaluation of talent cultivation, and quality improvement of talent cultivation. Finally, the research results of strategies of improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi were be collated.

3.To evaluate the feasibility of this strategy in private universities in Guangxi.

Evaluate the feasibility of the proposed research results on strategies of quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Research Methodology

This study adopts a combination of qualitative and quantitative research methods, mainly including questionnaire surveys, structured interviews, and expert evaluation.

Stage1: In accordance with the total quality management theory, constructivism theory, and other related literature researches on quality management of talent cultivation in private universities, it is determined that the variables of strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi are artificial intelligence education environment, artificial intelligence teaching and learning process support, artificial intelligence education evaluation, artificial intelligence management and service, quality objective of talent cultivation, quality assurance of talent cultivation, quality evaluation of talent cultivation, and quality improvement of talent cultivation.

Stage2: Make a questionnaire to research the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi. These questionnaires were conducted among senior graduates of the same discipline

categories (economics, finance, electronic information, art and design, business management, transportation, language and literature) from the three universities. The results of questionnaire were analyzed by factor analysis to get the Validity and feasibility of the data.

Step3: Adopted a structured interview outline including the questions in 4 aspects, that is, AI education environment, AI teaching and learning process support, AI education evaluation, and AI management and service. By using the content analysis method, this study summarizes the strategies for improving the quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Step4: Invite 5 experts, including leaders of the Guangxi education department, experts and scholars studying higher education in private universities in Guangxi, as well as representatives of middle level managers and teachers to evaluate the strategies of improving quality management of talent cultivation through artificial intelligence. The evaluation results will provide a strategic basis for optimizing the quality management of talent cultivation in private universities.

Conclusion

One key objective of this study is to discuss how to improve the strategies for quality management of talent cultivation in private university in Guangxi. This research pays attaintion to 8 variables: artificial intelligence education environment, artificial intelligence teaching and learning process support, artificial intelligence education evaluation, artificial intelligence management and service, quality objective of talent cultivation, quality assurance of talent cultivation, quality evaluation of talent cultivation, and quality improvement of talent cultivation. By investigation and study, it can be concluded:

1. According to the first objective of research, survey results were analyzed by

using the average and standard deviation to obtain the level of the quality management of talent cultivation through artificial intelligence in private universities in Guangxi. It is found that the average values of 8 variables are all at a medium level (including AI education environment, AI teaching and learning process support, AI education evaluation,AI management and service, quality objective, quality assurance, quality evaluation, and quality improvement of talent cultivation) .

2. According to the second objective of research, the researcher collated and analyzed the questionnaire and interview results, and proposed quality management strategies, with 4 strategies and 28 measures for private universities in Guangxi. The specific content is as follows:

Improve the quality objectives of talent cultivation strategies, including 7 measures: 1) Develop a comprehensive ethical code of conduct related to artificial intelligence, 2) Develop talent cultivation plans of "Artificial Intelligence + Major", 3) Acquire many kinds of knowledge by using AI. 4) Get strong problem-solving skills by using AI. 5) Improve language skills by using AI. 6). Make better career planning by using AI. 7). Improve sports management by using AI.

Improve the quality assurance of talent cultivation strategies, including10 measures: 1) Update AI high-tech devices frequently to improve the educational environment, 2) Provide normal management and services with AI; 3) Carry out courses combining artificial intelligence with majors; 4) Develop extracurricular activities related to "artificial intelligence+".5) Carry out trainings related to artificial intelligence for teachers and students. 6) Provide the massive study resources by using AI; 7) Give personalized learning by using AI. 8) Provide guidance and support to students by using AI; 9) Develop innovative teaching methods by using AI; 10) Strengthen the communication and cooperation between teachers and students by using AI;

Improve the quality evaluation of talent cultivation strategies, including 5 measures:

1) Establish an intelligent teacher evaluation system; 2) Establish an intelligent student evaluation system; 3) Develop intelligent feedback system between teachers and students; 4) Develop intelligent feedback system between universities and enterprises; 5) Promote intelligent self-assessment.

Improve the quality improvement of talent cultivation strategies, including 5 measures: 1) Use AI to have self-examination about teaching; 2) Use AI to have self-examination about classroom situation; 3) Use AI to have self-examination about assignment; 4) Use AI to have self-examination after class

5) Use AI to have self-examination about research.

3. According to the third objective of research, the researcher conducted an expert evaluation of the feasibility for the strategies of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi. The evaluation results indicated that the strategy has high feasibility, and has a positive effect on improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

Discussion

In the light of the survey results of the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi, the average and standard values of variables in the questionnaire were analyzed. It was found that the overall average value of 8 variables (including AI education environment, AI teaching and learning process support, AI education evaluation, AI management and service, quality objective, quality assurance, quality evaluation, and quality improvement of talent cultivation) is $\overline{X}$=3.41, which means at the medium level. The rank of the 8 variables based on the average value from high to low is: 1. AI education environment ($\overline{X}$=3.35); 2. AI teaching and learning process support ($\overline{X}$ =3.40); 3. AI education evaluation ($\overline{X}$=3.42); 4. AI management and service ($\overline{X}$=3.43); 5.

Quality objectives of talent cultivation ($\overline{X}$=3.47); 6. Quality assurance of talent cultivation ($\overline{X}$=3.49); 7. Quality evaluation of talent cultivation ($\overline{X}$=3.38); 8. Quality improvement of talent cultivation ($\overline{X}$=3.32). From these data, it is obvious that both are at a medium level and all need further improvement.

1. AI for education environment discussion: The overall average value of AI education environment is 3.35, which is at the medium level. Through analyzing the average and standard deviation data on the level of AI education environment, it is found that the average value of the indicator "Enjoy the convenient living environment provided by the intelligent restaurant" is the lowest, indicating that in terms of the current level of artificial intelligence education, the atmosphere of the artificial intelligence education environment is general, and the artificial intelligence education environment system is not yet complete.

2. AI for teaching and learning process support: The overall average value of teaching and learning process support is 3.4, which is at the medium level. Through analyzing the average and standard deviation data on the level of AI teaching and learning process support, it is found that the average value of the indicator "Have an intelligent robot learning partner" is the lowest, which is said that the popularity of robot smart phones in the community is not high, and the audience of robot smart phones among students is relatively low in Guangxi private universities.

3. AI for education evaluation: The overall average value of AI education evaluation is 3.4, which is at the medium level. Through analyzing the average and standard deviation data on the level of AI education evaluation, it is found that the average value of the indicator" Access to intelligent growth diagnosis and recommendation" is the lowest, indicating that the level of intelligent equipment invested by universities in student health monitoring is relatively low, and students have poor feedback on the compatibility of their mental health ratings with their

actual mental health levels.

4. AI for management and service Overall average value of AI management and service is 3.43, which is at the medium level. Through analyzing the average and standard deviation data on the level of management and service, it is found that “Use intelligent campus doctor assistant” is the lowest, indicating that the level of mobile medical equipment on campus is relatively low, and the intelligent service needs of students for medical treatment and health monitoring at school have not reached a high level of satisfaction.

5. Quality objectives of talent cultivation Overall average value of quality objectives of talent cultivation is 3.47, which is at the medium level. Through analyzing the average and standard deviation data on the level of quality objectives of talent cultivation, it is found that “Have a high level of professional skills” is the lowest, indicating that the level of the training of students' art cultivation and professional skills in Guangxi private universities may be paid slightly less attention to, and the training of students' professional skills is lacking in pertinence and frequency. At the same time, they have not provided students with a wealth of other curriculum resources to enhance their artistic appreciation ability, and students' satisfaction with the above aspects is slightly low.

6. Quality assurance of talent cultivation Overall average value of quality assurance of talent cultivation is 3.49, which is at the medium level. Through analyzing the average and standard deviation data on the level of quality assurance of talent cultivation, it is found that” Actively discuss the subject with teachers” is the lowest, indicating that the level of interaction and communication between students and teachers is average, students' enthusiasm for subject discussion and communication with teachers is insufficient, and students' level of learning initiative is average.

7. Quality evaluation of talent cultivation overall average value of quality

assurance of talent cultivation is 3.49, which is at the medium level. Through analyzing the average and standard deviation data on the level of quality evaluation of talent cultivation, it is found that “Obtain social feedback from employers” is the lowest, indicating that students believe that the current employer's response to student participation in activities or student opinions is not very timely, and the feedback cannot meet students' assessment and recognition of their job hunting roles.

8. Quality improvement of talent cultivation Overall average value of quality improvement of talent cultivation is 3.32, which is at the medium level. Through analyzing the average and standard deviation data on the level of quality improvement of talent cultivation, it is found that “Access to cutting-edge educational and teaching facilities” is the lowest, indicating that some intelligent teaching equipments in Guangxi private universities may have fewer opportunities for students to actually operate, and students feel that the convenience of intelligent teaching equipment is relatively low.

Recommendations

1. Quality objectives of talent cultivation: 1. Develop a clear understanding of the skills and competencies that are in demand in the job market, both currently and in the future. This can be done by conducting surveys and research on industry trends and job market requirements. Use this information to tailor your talent cultivation programs to ensure that graduates are equipped with the skills and knowledge needed to succeed in their chosen careers. 2.Foster collaboration between academic institutions and industry partners to ensure that talent cultivation programs are aligned with industry needs. This can include internships, co-op programs, and research partnerships with industry leaders. By working closely with industry partners, you can ensure that your talent cultivation programs are producing

graduates who are well-prepared for the job market. 3.Evaluate the effectiveness of talent cultivation programs and adjust them as needed. Use data analytics and other evaluation methods to measure student outcomes and identify areas for improvement. This will help ensure that your programs are constantly evolving to meet the changing needs of the job market and the students you serve.

2. Quality assurance of talent cultivation: 1. Recruit and train qualified faculty members: Private universities in Guangxi should recruit and train qualified faculty members who have expertise in AI and related fields. The faculty members should be well-versed in AI theories and applications, and should be able to integrate AI into their teaching and research activities. 2. Foster a culture of innovation and creativity: Private universities in Guangxi should foster a culture of innovation and creativity among students and faculty members. This could be achieved through the establishment of innovation centers, hackathons, and innovation challenges that focus on AI-related topics.3. Develop an AI-driven talent cultivation framework: Private universities in GuangXi should design a talent cultivation framework that is driven by artificial intelligence. This framework should outline the use of AI in various aspects of talent cultivation, including curriculum design, teaching and learning, assessment, and student support. The framework should also provide guidelines for the use of AI tools and platforms.

3. Quality evaluation of talent cultivation: 1. Develop a feedback mechanism: Private universities in Guangxi should develop a feedback mechanism to continuously evaluate and improve the quality of their AI talent cultivation programs. This could include surveys, focus groups, and other forms of feedback from students, faculty members, and industry partners.2. Develop AI-based assessment tools: Private universities in Guangxi should develop AI-based assessment tools to evaluate students' performance in AI-related courses. These tools could include automated grading systems, online quizzes, and AI-based project evaluation tools. 3. Involve

external experts: Private universities in GuangXi should involve external experts in the quality evaluation of talent cultivation through artificial intelligence. These experts can provide independent and objective evaluations of the effectiveness of AI in improving talent cultivation and provide suggestions for improvement.

4. Quality improvement of talent cultivation: 1. Foster a community of practice: Private universities in GuangXi should foster a community of practice around the use of AI in talent cultivation. This can involve creating forums, workshops, and other events where faculty, staff, and students can share their experiences, best practices, and challenges in using AI in education. 2.Provide opportunities for experiential learning: Private universities in GuangXi should provide opportunities for experiential learning that leverage the latest AI technologies. This can involve incorporating AI-powered simulations, virtual and augmented reality experiences, and other innovative tools that allow students to apply their knowledge in real-world settings. 3.Promote interdisciplinary collaboration: Private universities in GuangXi should promote interdisciplinary collaboration between different departments and faculties to leverage the strengths of different disciplines in the design and implementation of AI-powered talent cultivation initiatives.

Future Researches

Because of limited time and knowledge, although this study has proposed strategies and achieved certain results to improve the quality management of talent cultivation through artificial intelligence in private universities in Guangxi, there are still further researches needed.

The directions and contents of this research topic that need further research including: investigate ways to improve student learning outcomes. This could involve developing new assessment methods, designing effective learning materials, and

implementing strategies to support student engagement and motivation; to improve student support services, such as counseling and career services, and creating a more welcoming and inclusive campus environment; explore ways to strengthen industry-academic partnerships in Guangxi. This could involve developing new internship and work-study programs, as well as collaborating with industry partners to design curriculum that better aligns with industry needs; explore ways to enhance internationalization in private universities in Guangxi. This could involve developing new international partnerships and exchange programs, as well as creating opportunities for students to gain global competencies through international experiences. The author will conduct follow-up researches in future work.

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Appendixes

Appendix A

List of Specialists and Letters of Specialists Invitation for IOC Verification

List of Experts for Questionnaires

Number	Name	Title
1	Li Zhentan	Associate Professor of Nanning University
2	Ma Huanling	Professor of Guangxi Normal University
3	Wu Rui	Professor of Guangxi University of Foreign Languages

Appendix B

Official Letters

ที่ อว ๐๖๔๓.๑๔/๕๖

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๒๑ ถนนอิสรภาพ แขวงหิรัญรูจี
เขตธนบุรี กรุงเทพมหานคร ๑๐๖๐๐

๒๘ พฤศจิกายน ๒๕๖๕

เรื่อง ขอความอนุเคราะห์เก็บข้อมูลโดยการสัมภาษณ์

เรียน

สิ่งที่ส่งมาด้วย ๑. แบบสัมภาษณ์ จำนวน ๑ เล่ม

เนื่องด้วย Mis.Chen Ya นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการบริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์เรื่อง "Strategies for Improving Quality Management in Talent Cultivation Through Artificial Intelligence in Private Universities" โดยมีคณะกรรมการที่ปรึกษาวิทยานิพนธ์ ดังนี้

๑. ผู้ช่วยศาสตราจารย์ ดร.สราวุทธ์ เศรษฐขจร ประธานที่ปรึกษาหลัก
๒. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์ อาจารย์ที่ปรึกษาร่วม
๓. รองศาสตราจารย์ ดร.จิตตวิสุทธิ์ วิมุตติปัญญา อาจารย์ที่ปรึกษาร่วม

ในการนี้คณะกรรมการบริหารหลักสูตรฯ ได้พิจารณาเห็นว่าท่านเป็นผู้เชี่ยวชาญที่มีความรู้ความสามารถที่จะให้ข้อมูล คำแนะนำอันเป็นประโยชน์ต่อการประเมินความเหมาะสมและความเป็นไปได้ของนักศึกษาได้เป็นอย่างดี จึงขออนุญาตให้นักศึกษาเข้าสัมภาษณ์ และกำหนดวันเวลาแก่นักศึกษาที่ท่านสะดวก

จึงเรียนมาเพื่อโปรดพิจารณาให้ความอนุเคราะห์แก่นักศึกษาด้วยจะเป็นพระคุณยิ่ง

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร. ๐-๒๔๗๙-๗๐๐๐ ต่อ ๑๘๑๔

ที่ อว ๐๖๔๓๑๔/๕๑

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ ถนนอิสรภาพ แขวงหิรัญรูจี
เขตธนบุรี กรุงเทพมหานคร ๑๐๖๐๐

๒๘ พฤศจิกายน ๒๕๖๕

เรื่อง ขอความอนุเคราะห์เก็บข้อมูลในการทำวิทยานิพนธ์

เรียน Nanning University

เนื่องด้วย Mrs.Chen Ya นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการบริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์เรื่อง "Strategies for Improving Quality Management in Talent Cultivation Through Artificial Intelligence in Private Universities" โดยมีคณะกรรมการที่ปรึกษาวิทยานิพนธ์ ดังนี้

๑. ผู้ช่วยศาสตราจารย์ ดร.สรายุทธ์ เศรษฐาจร ประธานที่ปรึกษาหลัก
๒. รองศาสตราจารย์ ดร.นิรันดร์ สุธีนิรันดร์ อาจารย์ที่ปรึกษาร่วม
๓. รองศาสตราจารย์ ดร.จิตตวิสุทธิ์ วิมุตติปัญญา อาจารย์ที่ปรึกษาร่วม

ในการทำวิทยานิพนธ์ครั้งนี้ นักศึกษามีความจำเป็นต้องเก็บข้อมูล เพื่อประกอบการจัดทำวิทยานิพนธ์ ดังนั้น จึงใคร่ขอความอนุเคราะห์ให้นักศึกษาได้ทำการเก็บข้อมูลเพื่อนำไปประกอบการจัดทำวิทยานิพนธ์ให้สมบูรณ์ยิ่งขึ้น

จึงเรียนมาเพื่อโปรดพิจารณาหวังว่าคงได้รับความอนุเคราะห์จากท่านและขอขอบพระคุณมา ณ โอกาสนี้

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
โทร. ๐-๒๔๓๒-๗๐๐๐ ต่อ ๑๘๑๔

ที่ อว ๐๖๔๓๑๔/๕๓

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา
๑๐๖๑ ถนนอิสรภาพ แขวงหิรัญรูจี
เขตธนบุรี กรุงเทพมหานคร ๑๐๖๐๐

๒๘ พฤศจิกายน ๒๕๖๕

เรื่อง ขอความอนุเคราะห์เก็บข้อมูลในการทำวิทยานิพนธ์

เรียน Guilin University

เนื่องด้วย Mrs.Chen Ya นักศึกษาระดับบัณฑิตศึกษา หลักสูตรครุศาสตรดุษฎีบัณฑิต สาขาวิชาการบริหารการศึกษา มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา ได้รับการอนุมัติให้ดำเนินการวิจัยวิทยานิพนธ์เรื่อง "Strategies for Improving Quality Management in Talent Cultivation Through Artificial Intelligence in Private Universities" โดยมีคณะกรรมการที่ปรึกษาวิทยานิพนธ์ ดังนี้

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จึงเรียนมาเพื่อโปรดพิจารณาหวังว่าคงได้รับความอนุเคราะห์จากท่านและขอขอบพระคุณมา ณ โอกาสนี้

ขอแสดงความนับถือ

(ผู้ช่วยศาสตราจารย์ ดร.คณกร สว่างเจริญ)
คณบดีบัณฑิตวิทยาลัย

งานประสานบัณฑิตศึกษา
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เรื่อง ขอความอนุเคราะห์เก็บข้อมูลในการทำวิทยานิพนธ์

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๒๘ พฤศจิกายน ๒๕๖๕

เรื่อง เชิญเป็นผู้เชี่ยวชาญตรวจสอบความตรงเชิงเนื้อหาเครื่องมือในการทำวิทยานิพนธ์

เรียน Associate Professor Li Zhentan
Nanning University

สิ่งที่ส่งมาด้วย ๑. เค้าโครงวิทยานิพนธ์ จำนวน ๑ เล่ม
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เรียน Professor Ma Huanling
Guangxi Normal University

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เรียน Professor Wu Rui
Guangxi University of Foreign Languages

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งานประสานบัณฑิตศึกษา
โทร. ๐-๒๔๗๓-๗๐๐๐ ต่อ ๓๘๑๔

Appendix C

Research Instrument

Research Questionnaire

Title: Strategies for Improving Quality Management of Talent Cultivation Through Artificial Intelligence in Private Universities in Guangxi

Clarification

1. This questionnaire involves in the current situation of the application of AI in private universities in Guangxi. and the development of quality management through artificial intelligence in private universities in Guangxi. With the main objective is to study the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

2. The questionnaire is divided into two parts:

Part I: Ask the respondents about basic information. There are 9 questions.

Part II: Study the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi. There are 47 questions.

3. Please check your actual ability status of feeling, the standard is:

Level 5 indicates complete agreement and meets the highest level

Level 4 indicates comparative agreement and meets the high level

Level 3 indicates general agreement and meets the medium level

Level 2 indicates more disagreement and meets the low level

Level 1 indicates disagreement and meets the lowest level

Thank you very much for your help

Mrs. ChenYa

Doctoral student in Educational Administration

Part I: Basic information about respondents. There are 9 questions.

Basic information

1. Gender ❒ Male ❒ Female
2. Nationality ❒Han ❒National minority
3. Age ❒ （1） 18 years old and under ❒ （2） 19-20 years old ❒ （3） 21-22 years old ❒ （4） over 22 years old
4.Discipline Category ❒ （1） Economics ❒ （2） Finance ❒ （3） Electronic Information ❒ （4） Art Design ❒ （5） Business Administration ❒ （6） Transportation ❒ （7） Language and Literature ❒ （8） Others
5.Educational background of parents ❒ （1） Primary school ❒ （2） Middle-school ❒ （3） High-school ❒ （4） Junior College ❒ （5） University’s degree ❒ （6） Graduate’s degree ❒ （7） Doctor's degree
6.Home location ❒ （1） City ❒ （2） County ❒ （3） Village
7.Employment Direction ❒ （1） Related to major ❒ （2） Not related to major

8.Your understanding of the application of AI in your university.

❒（1） Very familiar
❒（2） Basic understanding
❒（3） Uncertain
❒（4） Not very familiar
❒（5） Completely unknown

9.Do you know something about AI technology？ (multiple choices)

❒（1） Big data
❒（2） Expert system
❒（3） Cloud computing
❒（4） Internet of Things
❒（5） Deep learning
❒（6） Speech recognition
❒（7） Image recognition
❒（8） Character recognition
❒（9） Human-Computer Interaction:Emotional computing
❒（10） Others

Part II: Study the level of quality management of talent cultivation through artificial intelligence in private universities in Guangxi.

No.	**Talent Cultivation Through Artificial Intelligence in Private Universities**	**Level**				
AI for education environment		5	4	3	2	1
1	Enjoy a wireless intelligent campus environment (such as: WIFI signals, independent internal and external network signals without interference)					
2	Get intelligent classrooms for individualized learning guidance （Have smart classrooms to get personalized learning guidance (such as: special smart classrooms and cloud computing training rooms)					

3	Get an intelligent library for efficient and convenient services (such as: intelligent consulting robots, intelligent book management system)					
4	Have intelligent access control devices applied to campus security (such as: face recognition entrance guard, vehicle detection)					
5	Enjoy the convenient living environment provided by the intelligent restaurant(such as the artificial intelligence cafeteria)					
AI for teaching and learning process support		5	4	3	2	1
1	Access to high-quality learning resources using various intelligent teaching platforms (such as: iFLYTEK artificial intelligence development platform, intelligent finance and taxation platform)					
2	Able to learn in a virtual environment (such as: simulation laboratory)					
3	Have an intelligent robot learning partner (such as: XiaoDu robot, smart phone)					
4	Participate in intelligent courses for interactive learning (such as: MOOC classes and Micro-classes)					
5	Take intelligent online exams and assign intelligent online tasks (such as: iTEST paperless test)					
6	Participate in AI education-related activities organized by the university (such as: China College Students' Internet+Innovation and Entrepreneurship Competition)					

AI for education evaluation		5	4	3	2	1
1	Access to intelligent classroom evaluation (such as: Ding Talk)					
2	Access to intelligent scoring and intelligent (such as: iTEST intelligent evaluation cloud platform)					
3	Access to automatic oral evaluation (such as: FiF smart teaching and learning platform)					
4	Access to intelligent monitoring and warning of mental health (such as: mental health evaluation platform)					
5	Access to intelligent growth diagnosis and recommendation (such as： LAIX App)					
AI for management and service		5	4	3	2	1
1	Use intelligent school management system (such as: the online student affairs service system, management system of smart campus)					
2	Access to intelligent data collection and management (such as: Ding Talk intelligent education system)					
3	Use AI teaching management assistant (such as PE class: LePao tiyu；XiaoYou bang social practice platform for college students)					
4	Access to customized education services (such as Smart Partner App， MoMo App)					
5	Use intelligent campus doctor assistant (such as: Tencent Health App to do AI detection and other mobile medical apps)					

No.	Quality Management Through Artificial Intelligence in Private Universities	5	4	3	2	1
Quality objectives of talent cultivation						
1	Have a strong sense of social responsibility					
2	Have a high level of professional skills					
3	Have a good physical fitness					
4	Able to appreciate and create beauty					
5	Have good social practice ability					
Quality assurance of talent cultivation		5	4	3	2	1
1	Make full use of teaching resources to learn relevant knowledge					
2	Take various skill level certificate examinations					
3	Participate in various professional competitions actively.					
4	Participate in various social practice activities actively.					
5	Participate in various academic trainings and lectures organized by experts from other famous universities actively.					
6	Have opportunities to actively discuss majors with teachers.					
7	Have strict classroom attendance management.					

8	Have strict teaching and studying rules and regulations in class.					
Quality evaluation of talent cultivation		5	4	3	2	1
1	Have a clear self-awareness					
2	Conduct a self-summary and reflection at the end of the semester					
3	Have an objective and correct evaluation of teachers' teaching level					
4	Get fair and objective evaluation from teachers.					
5	Enjoy a perfect teaching and learning evaluation system in your university.					
6	Obtain social feedback from employers					
Quality improvement of talent cultivation		5	4	3	2	1
1	Updates the advanced infrastructures irregularly in your campus.					
2	Access to cutting-edge educational and teaching facilities					
3	Emphasize on active learning and individualized learning					
4	Access to innovative teaching methods					
5	Obtain more opportunities for social practice activities					

6	Participate in cross-disciplinary extracurricular activities actively					
7	actively improve research awareness and research level actively					

Appendix D

The Results of the Quality Analysis of Research Instruments

Research Instrument Consistency Index (IOC)

To study the level of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi

No.	The level of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi	Expets			IOC	Results
		1	2	3		
Basic Information						
1	Gender ❒ Male ❒ Female	1	1	1	1.00	valid
2	Nationality ❒ Han ❒ National minority	1	1	1	1.00	valid
3	Age ❒ (1) 18 years old and under ❒ (2) 19-20 years old ❒ (3) 21-22 years old ❒ (4) over 22 years old	1	1	1	1.00	valid
4	Discipline Category ❒ (1) Economics ❒ (2) Finance ❒ (3) Electronic Information ❒ (4) Art Design ❒ (5) Business Administration ❒ (6) Transportation ❒ (7) Language and Literature ❒ (8) Others	1	1	1	1.00	valid
5	Educational background of parents ❒ (1) Primary school ❒ (2) Middleschool ❒ (3) High-school ❒ (4) Junior College ❒ (5) University’s degree ❒ (6) Graduate’s degree ❒ (7) Doctor's degree	1	1	1	1.00	valid

6	Home location ❒ (1) City ❒ (2) County ❒ (3) Village	1	1	1	1.00	valid
7	Employment Direction ❒ (1) Related to major ❒ (2) Not related to major	1	1	1	1.00	valid
8	Your understanding of the application of AI in your university. ❒ (1) Very familiar ❒ (2) Basic understanding ❒ (3) Uncertain ❒ (4) Not very familiar ❒ (5) Completely unknown	1	1	1	1.00	valid
9	Do you know something about AI technology? (multiple choices) ❒ (1) Big data ❒ (2) Expert system ❒ (3) Cloud computing ❒ (4) Internet of Things ❒ (5) Deep learning ❒ (6) Speech recognition ❒ (7) Image recognition ❒ (8) Character recognition ❒ (9) Human-Computer Interaction: Emotional computing ❒ (10) Others	1	1	1	1.00	valid

No.	The level of improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi	Expets			IOC	Results
		1	2	3		
AI for education environment						
1	Enjoy a wireless intelligent campus environment (such as: WIFI signals, independent internal and external network signals without interference)	1	1	1	1.00	valid
2	Get intelligent classrooms for individualized learning guidance(Have smart classrooms to get personalized learning guidance (such as: special smart classrooms and cloud computing training rooms)	1	1	1	1.00	valid
3	Get an intelligent library for efficient and convenient services (such as: intelligent consulting robots, intelligent book management system)	1	1	1	1.00	valid
4	Have intelligent access control devices applied to campus security (such as: face recognition entrance guard, vehicle detection)	1	1	1	1.00	valid
5	Enjoy the convenient living environment provided by the intelligent restaurant(such as the artificial intelligence cafeteria)	1	1	1	1.00	valid
AI for teaching and learning process support						
1	Access to high-quality learning resources using various intelligent teaching platforms (such as: iFLYTEK artificial intelligence development platform, intelligent finance and taxation platform)	1	1	1	1.00	valid
2	Able to learn in a virtual environment (such as: simulation laboratory)	1	1	1	1.00	valid

3	Have an intelligent robot learning partner (such as: XiaoDu robot, smart phone)	1	1	1	1.00	valid
4	Participate in intelligent courses for interactive learning (such as: MOOC classes and Micro-classes)	1	1	1	1.00	valid
5	Take intelligent online exams and assign intelligent online tasks (such as: iTEST paperless test)	1	1	1	1.00	valid
6	Participate in AI education-related activities organized by the university (such as: China College Students' Internet+Innovation and Entrepreneurship Competition)	1	1	1	1.00	valid
AI for education evaluation						
1	Access to intelligent classroom evaluation (such as: DingTalk)	1	1	1	1.00	valid
2	Access to intelligent scoring and intelligent (such as: iTEST intelligent evaluation cloud platform)	1	1	1	1.00	valid
3	Access to automatic oral evaluation (such as: FiF smart teaching and learning platform)	1	1	1	1.00	valid
4	Access to intelligent monitoring and warning of mental health (such as: mental health evaluation platform)	1	1	1	1.00	valid
5	Access to intelligent growth diagnosis and recommendation (such as： LAIX App)	1	1	1	1.00	valid

AI for management and service						
1	Use intelligent school management system (such as: the online student affairs service system, management system of smart campus)	1	1	1	1.00	valid
2	Access to intelligent data collection and management (such as: Ding Talk intelligent education system)	1	1	1	1.00	valid
3	Use AI teaching management assistant (such as PE class: LePao tiyu; XiaoYou bang social practice platform for college students)	1	1	1	1.00	valid
4	Access to customized education services (such as Smart Partner App, MoMo App)	1	1	1	1.00	valid
5	Use intelligent campus doctor assistant (such as: Tencent Health App to do AI detection and other mobile medical apps)	1	1	1	1.00	valid

Interview Form

Title: Strategies for improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi

Problems
1. Gender ❒ Male ❒ Female
2. Nationality ❒ Han ❒ National minority
3. Age ❒ （1） 20-25years ❒ （2） 26-30years ❒ （3） 31-35years ❒ （4） 36-40years ❒ （5） 41-45years ❒ （6） 46-50years ❒ （7） Over 50 years
4.Marital status ❒ （1） Unmarried ❒ （2） Married
5. Highest degree ❒ （1） Bachelor's degree ❒ （2） Master's degree ❒ （3） Doctorate

6. Title

❒ （1） Primary
❒ （2） Intermediate
❒ （3） Deputy Senior
❒ （4） Senior

7.Research Direction

❒ （1） Economics
❒ （2） Finance
❒ （3） Electronic Information
❒ （4） Art Design
❒ （5） Business Administration
❒ （6） Transportation
❒ （7） Language and Literature
❒ （8） Others

8.Your understanding of the application of AI in your university

❒ （1） Very familiar
❒ （2） Basic understanding
❒ （3） Uncertain
❒ （4） Not very familiar
❒ （5） Completely unknown

9. Do you know something about AI technology？ (multiple choices)

❒ （1） Knowledge representation;
❒ （2） Big data;
❒ （3） Cloud computing;
❒ （4） Internet of Things;
❒ （5） Deep learning;
❒ （6） Speech recognition;
❒ （7） Image recognition;
❒ （8） Human computer cooperation: Emotional computing
❒ （9） Others

Aspects	Strategies for improving the quality management in talent cultivation through artificial intelligence in education for private universities
1.AI for education environment	1.How to make full use of the smart classrooms to improve the classroom atmosphere and learning efficiency?
	2.How to use intelligent technologies to ensure the safety of students?
2.AI for teaching and learning process support	3.How to use AI to prepare and present lessons intelligently?
	4.How to make full use of the intelligent teaching and learning platforms to strengthen the communication and cooperation between teachers and students?
	5.How to use artificial intelligence for workplace learning?
3.AI for education evaluation	6.How to make full use of the intelligent marking and learning analysis system?
	7.How to make full use of automated oral evaluation system?
	8.How to use the mental health evaluation system to predict and alleviate college students' mental health problems?
4.AI for management and service	9.How to use artificial intelligence to improve the efficiency of students' daily affairs management?
	10. How to make individualized student development plans by using artificial Intelligence?

Strategy Evaluation Form

Evaluate the Strategies for improving quality management of talent cultivation through artificial intelligence in private universities in Guangxi

No.	Quality Management Through Artificial Intelligence in Private Universities	Feasibility				
		5	4	3	2	1
Quality objectives of talent cultivation						
1	Develop a comprehensive ethical code of conduct related to artificial intelligence					
2	Develop talent cultivation plans of "Artificial Intelligence+Major"					
3	Acquire many kinds of knowledge by using AI					
4	Get strong problem-solving skills by using AI					
5	Improve language skills by using AI.					
6	Make better career planning by using AI.					
7	Improve sports management by using AI.					
Quality assurance of talent cultivation		5	4	3	2	1
1	Update AI high-tech devices frequently to improve the educational environment					
2	Provide normal management and services with AI					

3	Carry out courses combining artificial intelligence with majors					
No.	Quality Management Through Artificial Intelligence in Private Universities	Feasibility				
		5	4	3	2	1
4	Develop extracurricular activities related to "artificial intelligence+"					
5	Carry out trainings related to artificial intelligence for teachers and students.					
6	Provide the massive study resources by using AI					
7	Give personalized learning by using AI.					
8	Provide guidance and support to students by using AI					
9	Develop innovative teaching methods by using AI					
10	Strengthen the communication and cooperation between teachers and students by using AI					
Quality evaluation of talent cultivation		5	4	3	2	1
1	Establish an intelligent teacher evaluation system					
2	Establish an intelligent student evaluation system					

3	Develop intelligent feedback system between teachers and students					
4	Develop intelligent feedback system between universities and enterprises					
5	Promote intelligent self-assessment.					
Quality improvement of talent cultivation		5	4	3	2	1
1	Use AI to have self-examination about teaching					
2	Use AI to have self-examination about classroom situation					
3	Use AI to have self-examination about assignment					
4	Use AI to have self-examination after class					
5	Use AI to have self-examination about research					

Appendix E

Certificate of English

มหาวิทยาลัยราชภัฏบ้านสมเด็จเจ้าพระยา

Bansomdejchaopraya Rajabhat University

This is to certify that

MRS. CHEN YA

Achieved BSRU-TEST of English Proficiency (BSRU – TEP) level

C 2

Given on 20th January 2020

Linda Gainma

(Assistant Professor Dr. Linda Gainma)

President

Appendix F

The Document for Acceptance Research

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Acceptance Letter

Dear Author(s): **ChenYa , Sarayuth Sethakhajorn, Niran Sutheeniran, Jittawisut Wimuttipanya, Patchara Dechhome**

Paper ID	JSFS_86
Paper Title	Strategies for Improving Quality Management of Talent Cultivation Through Artificial Intelligence in Private Universities in GuangXi

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